THE LANCET.

No. 4417. Vol. CLXXIV. LONDON, SATURDAY, APRIL 25, 1908. [Pp. 120+40.

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The Gresham Lecture

ON

THE GRESHAM PROFESSORS OF PHYSIC.

Delivered at Gresham College on March 2nd, 1908,

BY F. M. SANDWITH, M.D. DURH., F.R.C.P. LOND.,

GRESHAM PROFESSOR OF PHYSIC.

"Vita mortuorum in memoria vivorum est posita."—*Cic. Philipp. XI.*

GENTLEMEN,—On Jan. 16th, 1597, 17 years after the death of Sir Thomas Gresham, a threefold agreement was drawn up between the Mayor and Commonalty and Citizens of London of the first part, the Master Wardens of the Mercers' Company of the second part, and the seven Gresham professors already in residence in Gresham House of the third part, with regard to the good government of Gresham House according to the intent and meaning of the last will and testament of Sir Thomas Gresham. For the credit of the place, the increase of learning, and the greater honour of the Founder, it was unanimously thought meet and convenient that, in order to decide weighty matters in controversy and for the teaching of the principal and most material heads in all the several arts and sciences, certain solemn lectures should be delivered with great care and diligence at set days and times. And forasmuch as the public reading of the said lectures should be performed in that manner as would most tend to the glory of God and the common benefit of the people of this city, most of whom "understand not the Latin tongue, whereby the said lectures may become solitary in a short time, if they shall be read in the Latin tongue only," it was decreed that the lecture should be read in English for the benefit of the citizens, while it should be repeated in Latin for the sake of divers strangers of foreign countries "who resort to London and understand not the English tongue, yet will greatly desire to hear the reading of the said lectures, whereby the memory of the Founder in erecting the College for the increase of learning may be divulged, to the good example of foreign nations and the honour and credit of this honourable city." The bell which summoned merchants to the Royal Exchange was rung to give notice of the lectures, a practice which seems to have been discontinued after the Great Fire.

We are only concerned here with that clause of the ordinance which relates to the duties of the professor of physic:—

> And forasmuch as the greatest part of the auditory is like to be of such citizens and others as have small knowledge or none at all in the Latin tongue, and for that every man for his health's sake will desire to have some knowledge in the art of physick; it is thought good that the first lecture be read in the Latin, and the second in the English tongue. Touching the matter of the said solemn lecture, albeit the same is to be referred to the discretion of the reader; yet it is wished, that herein he follow Fernelius his method, by reading first physiologie, then pathologie, and lastly therapeutice; whereby the body of the said art may be better imprinted by good method in the studious auditors, rather than be disjointed and delivered out of order by exposition of some part of Galen or Hippocrates.

You will like to have a few particulars about the Fernelius who was held up as a model for the Gresham professors of physic to follow. Jean François Fernel (1497–1558) was a French physician who, as a youth, so distinguished himself at Paris in mathematics, philosophy, and languages that he was offered a professorship in one of those subjects. This offer he declined, preferring to become a physician, and he was eventually named professor of medicine in 1534. His extraordinary erudition, and the skill and success with which he sought to inculcate a more intelligent study of the old Greek physicians, gained for him a great reputation and ultimately the post of physician to the court of Henry II. and Catherine of Medici, the parents-in-law of Mary, Queen of Scots. The sixteenth century is memorable for the number of universities founded in Europe and for the general impulse towards freedom and independence due to the overwhelming conviction that thought must be freed from the fetters which had so long restrained it. Fernel earned the title of reformer because he taught that physicians should study the human body and think for themselves instead of blindly accepting all the writings of Galen and Hippocrates who had lived respectively 13 centuries and 19 centuries before him. Seeing the fruitlessness of mere speculation, he was one of the first to recommend that one ought to look for the cause of disease in the body itself and not in the fluids occasioned by the disease. The dissection of human bodies was not yet permitted, but we may assume that Fernel was of the same opinion as his Venetian contemporary, Realdo Colombo, who said that a man could learn more in one day by the dissection of a dog than by continually feeling the pulse and studying Galen's writings for many months together.

Let me now give you a brief account of the illustrious men who have preceded me in this post. Matthew Gwinne (1596–1607),[1] the son of a grocer, was a scholar and Fellow of St. John's College, Oxford, and in his younger days was appointed "Regent Master to read upon Music," for this was before the days when public professors were appointed and supported by fixed salaries to teach the liberal arts. But when he had taken his degree in arts he embraced the profession of medicine and practised as a physician in Oxford for several years. He was allowed to discontinue the lecture on music because "suitable books were difficult to procure, and the practice of that science was unusual if not useless." In 1592 he was chosen to reply in a Latin debate at Oxford for the entertainment of Queen Elizabeth, and it is reported that his witty handling of the matter and his discreet behaviour seemed to please her Majesty much. In the following year he was created doctor of physic, and we next hear of him as professionally attending Sir Henry Unton, the Ambassador of this country at the French Court. In March, 1596, he was chosen as the first professor of physic at Gresham College, being one of the two who were nominated by the University of Oxford, and his introductory lectures in 1598 consisted of an oration in praise of the founder and his institution. In 1604 he was admitted a candidate of the College of Physicians of London, or, as we should now call it, a Member, and in the following year he was made physician to the Tower. During that year James I., with his Queen, Prince Henry, and their courts went to Oxford, where they were entertained for three days with academical exercises of all kinds. Dr. Gwinne was specially prominent on the occasion, and took part in the two debates, whether the morals of nurses are imbibed by infants with their milk and whether tobacco smoking is wholesome or not. As the king was a professed enemy of tobacco and had written against the use of it this debate gave His Majesty an opportunity of expressing his own sentiments on the subject. On the same evening a Latin comedy was acted at Magdalen College, of which Dr. Gwinne was the author. The King was pleased with the acting of the students, although it did not keep him awake. A few months later Dr. Gwinne was admitted a Fellow of the College of Physicians and resigned his Gresham professorship in 1607, probably in order to marry. From 1608 to 1627 he was registrar of the College of Physicians and continued to practise in London where he was much esteemed both in the city and at court. In 1620, seven years before his death, he was appointed, with seven other Royal Commissioners, to draw up regulations for garbling (or sorting) tobacco before it was exposed for sale. He wrote several papers and was a man of intelligence, lively fancy, and poetic genius. He had read much and was well versed in all sorts of literature, accurately skilled in modern languages, and was much valued for his knowledge and success in the practice of his profession. His only medical work was an able treatise in Latin to prove that Francis Anthony's celebrated but secret remedy, called "potable gold," contained no gold at all, and that even if it did the virtues of gold as a medicine were much exaggerated. This Anthony (1550–1623) was a successful empiric who when examined in medicine before the President and Censors of the College of Physicians and being found ignorant was forbidden to practise. He disregarded this injunction and was in consequence fined and sent to prison more than once. He claimed that his secret remedy would cure all diseases and offered to exhibit his process of dissolving gold, which his adversaries declared was impossible. Accordingly a trial was held at the College of Physicians in 1609 before the Master of the Mint and other experts but when Anthony was given an ounce of gold he failed to dissolve it. Dr. J. F. Payne suggests that any efficacy which the cordial may have possessed was due to certain ethers formed in the process

[1] The dates within brackets after the professors' names show the years during which each occupied the chair of physic.

of distilling or to the good canary wine employed in the mixing.

A tablet in memory of Francis Anthony, who lived in St. Bartholomew's-close, may be seen on the north wall of the Church of St. Bartholomew the Great. Gwinne had at least four famous colleagues at Gresham College—namely, Henry Briggs, the great mathematician, who improved Napier's table of logarithms; John Bull, the organist and composer and the latter's successor as Gresham professor of music; Thomas Clayton, who became professor of physic and anatomy at Oxford. He had the reputation of being a great linguist "to whom the great Avicenna might speak and be understood without an interpreter." Also George Mountayne (Montaigne or Mountain), Professor of Divinity, who eventually became Archbishop of York. The story is that he strained every nerve to get this last preferment and that when Charles I. was discussing the question of the vacant see in his presence he wittily remarked to the King: "Hadst thou faith as a grain of mustard seed thou wouldst say unto this Mountain, 'Be removed into that see!'"

Peter Mounsell (1607–1615) studied medicine in Oxford, Cambridge, Paris, and Padua, and afterwards made a second tour on the continent to visit the Universities of Basle, Strasburg, and Leyden, where he apparently took the degree of doctor of physic. He was Gresham Professor for eight years and practised in the city, being buried, like our founder, in St. Helen's Church.

Thomas Winston (1615–1643 and 1652–1655) was the son of a carpenter and was born in the year 1575. He was educated at Clare Hall in Cambridge, where he had a Fellowship and took the degree of Master of Arts, after which he became Doctor of Physics at Padua. While abroad he attended the lectures of celebrated anatomists, Fabricius and Prosper Alpinus at Padua and Caspar Bauhine at Basle. He eventually settled in London, where he became eminent in his profession. He received a doctor's degree at Cambridge and became Fellow of the College of Physicians in London. Among his unsuccessful competitors for the post of professor of physic at Gresham College in 1615 was the younger son of Mr. John Fox (the celebrated martyrologist), Dr. Simeon Fox, who was the last President of the College of Physicians who used to ride on horseback in London to visit his patients. Dr. Winston held his professorship in this College till the year 1642, by which time he had acquired a handsome fortune, when he suddenly and somewhat mysteriously left England, possibly compelled to do so for political reasons. When he had been absent from this country for six months Dr. De Laune was chosen in his place. Dr. Winston remained in France some ten years and returned to this country in 1652, when he made his peace with the Government and was restored to the possession of what he had lost upon going abroad. But by this time he was advanced in years and did not long enjoy his professorship, for he died in 1655, being then 80 years of age. Meric Casaubon called him "the great ornament of his profession" and Dr. Hamey commended him for keeping up the dignity of the faculty against the apothecaries. He never seems to have published anything during his life but after his death a treatise came out with this title: "Anatomy lectures at Gresham College by that eminent and learned physician, Dr. Thomas Winston, London, 1659." A second edition was called "The Compleat Anatomist" and is said to have been in some ways better than any other work on anatomy then extant in English. Its chief interest at the present time to us is that the book contained no mention of Harvey's great discovery of the circulation of the blood which had been announced at the College of Physicians in 1616 and given to the world at large since 1628. Winston was well read in Galen and in Latin authors, but held the old belief that there were openings between the two ventricles of the heart, and that the arteries transmitted as well as blood vital spirit formed in the left ventricle. During Winston's first term as professor Sir Kenelm Digby, Admiral, philosopher, and chemist, spent two hermit-like years at Gresham College, with beard unshorn, in sorrow for his beloved wife, whom he was supposed to have poisoned by accident by giving her viper's flesh in broth to heighten her beauty.

During Winston's long term of office he had many eminent contemporaries at Gresham College, of whom at least four must be singled out for special mention. 1. Edward Gunter, his colleague in the astronomical chair, invented the sector, and was the first to calculate tables of logarithms for sines and tangents, besides making many other inventions and improvements in mathematics. He was the first to coin the words cosine, cotangent, and cosecant, and his name has been perpetuated in "Gunter's scale" and "Gunter's chain," still constantly used in land surveying. 2. Henry Gellibrand, his successor, contributed much to the improvement of navigation by following up Gunter's work on the variation of the magnetic needle. He seems to have been a plodding, industrious mathematician, without any special genius. 3. Daniel Whistler, professor of geometry, was M.D. of Leyden and Oxford Universities, one of the original Fellows of the Royal Society, and died as President of the College of Physicians. His thesis on taking his degree at Leyden was "On the English Disease of Childhood, called Rickets," and this is the earliest printed account of that disease. Dr. Norman Moore tells us that the author was dissatisfied with the vulgar name "rickets" and proposed to substitute for it "pædossplanchnosteocaces," which fortunately no one has been barbarous enough to adopt. Whistler practised his profession in London, but died very much in debt, and was accused of having taken insufficient care of the property of the College of physicians. Samuel Pepys described him as "good company and a very ingenious man," and Evelyn called him "the most facetious man in nature." 4. More remarkable than any of these was Sir William Petty, professor of music. Though the son of a clothier he proved to be an universal genius, statesman, and one of the earliest political economists. He took the degree of M.D. Oxford, where he became professor of anatomy, then physician to the army in Ireland, Fellow of the College of Physicians of London, one of the founders of the Royal Society, and eventually Surveyor General of Ireland. While acting as deputy to the professor of anatomy at Oxford in 1650 he obtained a wide reputation by reviving the supposed corpse of one Ann Greene who had been hanged for the murder of her illegitimate child and pronounced dead by the sheriff. The medical evidence at the trial corroborated the woman's statement that the child was still-born, in spite of which she was condemned to death. After hanging for the usual time she was cut down and handed over to the doctors for dissection. It was then discovered that she was still breathing, and, by the aid of restoratives, regained her health and was granted a free pardon. The event was regarded as a special Divine interference on behalf of an innocent and betrayed woman, and several pamphlets and poems were written in Oxford upon the occasion, one set of Latin verses being by Christopher Wren, who was then an undergraduate.

Among many other inventions Petty invented a double-bottomed ship to sail against wind and tide, which was considered one of the most wonderful discoveries of the day. On one occasion, being challenged to fight a duel and having the right to name the place and weapon, he proposed a dark cellar and an axe, in order, being short-sighted, to put himself upon an equality with his adversary. The challenge was thus turned into ridicule and the duel never took place. When in London his house was in Piccadilly, where Lincoln and Bennett now sell hats. Petty was twice offered and refused a peerage and one likes to think that possibly some of the statesman-like qualities of this great man have been handed down to his descendant, the present Marquis of Lansdowne.

Paul de Laune (1643–1652) was appointed to Dr. Winston's professorship during his absence. He was the brother of Gideon de Laune, a wealthy apothecary in London, who was one of the first assistants appointed by the Charter of the Apothecaries when they became separated from the grocers in the year 1617. He was also related by marriage to Dr. Argent, who was eight times President of the College of Physicians. De Laune studied at Cambridge and afterwards at Padua, where he was created Doctor of Physic. Later, he took the same degree at Cambridge and became a Fellow and senior Censor of the College of Physicians. He practised in Dublin, where he was physician to the Viceroy of Ireland, until he succeeded Dr. Winston at Gresham College. The restoration of the latter was a great blow to him, as it removed from him his chief means of support. Though then about 70 years of age he accepted an offer from Oliver Cromwell and was appointed physician-general to the fleet upon an expedition to Hispaniola under Admiral Penn. The expedition was repulsed by the Spaniards and the troops then sailed to Jamaica where they had better success, for they took the town, drove the inhabitants into the woods, and made a settlement, which has been one of our flourishing colonies ever since. Dr. de Laune apparently died in or near

Jamaica, for he was never heard of after that time. As he had children Ward presumes that he must have been a widower when he officiated at Gresham College. You will notice that most of the Gresham professors to whom I have referred went to Italy to complete their medical studies, and especially to Padua, which was then at the height of its renown as a school of anatomy and medicine.

Jonathan Goddard (1655–1674) was the son of a rich shipbuilder and was educated at Oxford and elsewhere. He then became a practitioner in London, a doctor of physic of Cambridge, and a Fellow and Censor of the College of Physicians. He was a promoter and one of the original council of the Royal Society, to which he made 14 communications. After being chief physician to Cromwell's army in Ireland and Scotland he rode into London in triumph with that general in 1651 after the battle of Worcester. He then became Warden of Merton College, Oxford, one of Cromwell's Little Parliament, and and was appointed a member of the Council of State. Upon Dr. Winston's death he was elected Gresham professor of physic and when the fire of 1666 occurred in London he removed for a time from Gresham College with the other professors to make room for the Mayor and Corporation who for some years transacted their business there until the City was rebuilt. He died at the College in 1674 and was buried in St. Helen's Church. He was the first Englishman to make telescopes, and being a clever chemist he worked hard in his laboratory at Gresham College at that science. One of his papers read before the Royal Society was entitled "A Discourse upon Eggs, containing Ten Signs whereby to Distinguish New Eggs from those which are Stale." He not only prescribed but concocted medicines and published a treatise recommending that physicians should prepare their own remedies, on the grounds that apothecaries were ignorant and that they dared to prescribe for the sick as well as to compound medicines. His reputation was kept alive for years by certain volatile drops, which were his invention and bore his name; though long in great repute this nostrum is now entirely forgotten. The drops were used in faintings, apoplexies, lethargies, or other sudden and alarming attacks, and were praised by the great Dr. Sydenham who found them better than any other volatile spirits "for energetically and efficaciously attaining the end for which they are applied." On the continent they used to be prescribed under the name of the "English drops." It is believed that they consisted of spirit of ammonia, to which other ingredients were added, such as dried viper and the skull of a person who had been hanged. Goddard is said by some to have sold the secret of his drops to Charles II. for £5000 and it is to be noted that traffic in secret remedies was not held to be improper at that time.

Three of his distinguished contemporaries can hardly be passed over in silence, Wren, Barrow, and Hooke. Sir Christopher Wren, versatile genius and most famous of English architects, became Gresham professor of astronomy in his twenty-fifth year. His rooms in the College soon attracted those men of science who founded the Royal Society, of which he eventually became President. Within a week after the great fire of London had been extinguished Wren was ready with a plan for rebuilding the City, which was not accepted, chiefly because it was too thorough and too far-seeing. He thus had time to reconstruct St. Paul's Cathedral, 52 churches, no two of which were alike, 36 of the companies' halls, the Customs House, and several private houses, so that all that part of London seen from Blackfriars Bridge seemed to have sprung from his energy. Of the churches I may single out one, a gem of architecture, St. Stephen's, Walbrook, which was greatly admired by Wren's contemporaries on the continent. I need hardly remind you of his grand epitaph in St. Paul's Cathedral, which states that he lived more than 90 years, not for himself, but for the public good. "Reader, if you are searching for his monument, look around you!"

Isaac Barrow, the professor of geometry, celebrated divine and scholar, showed but little promise in early life of his great talents, for he had to be removed from Charterhouse School because of his propensities for fighting and for stimulating other boys to fight, while at home he was so troublesome that his father was once heard to say, that if it pleased the Almighty to take any one of his children he could best spare Isaac! We hear little of his fighting in after life, though at the age of 26 years, while sailing from Leghorn to Smyrna on his way to Constantinople to read the works of St. Chrysostom, he had the opportunity of showing marked courage during an attack on the vessel by an Algerian pirate ship. He was at one time tutor to the famous Isaac Newton. His learning was prodigious and when he became chaplain to Charles II. the king called him "an unfair preacher, because he exhausted every topic and left no room for anything new to be said by any one who came after him." I do not know whether his sermons would be appreciated in the present day, for they usually took more than one and a half hours to deliver. He died at the comparatively early age of 47 years and was buried in Westminster Abbey, where the inscription on his monument was composed by his great friend, Dr. John Mapletoft.

Robert Hooke, the inventor and author, was also a Gresham professor of geometry. Unlike Barrow, he showed extraordinary cleverness as a school boy and astonished his teachers at Westminster School by mastering the six books of Euclid in one week. He also prepared a model for rebuilding the city after the great fire and, though it was not accepted, he obtained the appointment of city surveyor. In 1674 the Royal Society returned to Gresham College to hold its scientific meetings there and in the same year the Gresham committee "in order to encourage Mr. Hooke in his curious and useful enquiries" allowed him, at the cost of £40, to erect an astronomical turret over his quarters in the College. He was curator of the treasures of the Royal Society and received the compliment of being created Doctor of Physic at Doctors' Commons by a warrant from Tillotson, Archbishop of Canterbury. Engaged to the last in philosophic research, he died in Gresham College and was buried in St. Helen's Church. He was the greatest mechanic of his age, but his brilliant erratic genius seldom allowed him to finish one investigation before hurrying on to the next. He divined the doctrine of universal gravitation before Newton but had not the mathematical ability to prove it.

It was in Goddard's time that Samuel Pepys was admitted a member of Gresham College and paid £2 for that privilege. It should not be forgotten that Gresham College was the cradle of the Royal Society.

John Mapletoft (1675–1679), physician and divine, after travelling on the continent and studying medicine in Italy became Doctor of Medicine at Cambridge and afterwards at Oxford, and practised in London, where he was made a Fellow of the Royal Society. He was on intimate terms with many eminent men, including Dr. Thomas Sydenham and John Locke. The former dedicated to him the first edition of his "Medical Observations," and at the author's request Mapletoft translated some of Sydenham's works into Latin. He and Sydenham are said to have been for seven years closely associated in medical practice. Mapletoft began his lectures at Gresham College by describing Harvey's work and his discovery of the circulation of the blood, but he resigned the professorship in 1679 in order to marry, after which he relinquished the study of medicine for divinity, being then more than 50 years of age. Locke's friendship for him is shown by what he wrote to him on his entering into Holy Orders: "I like our calling the worse since you have quitted it." Locke himself had at that time renounced the practice of medicine and was devoting himself to his 17 years' study as to what questions the human understanding was or was not fitted to deal with. Mapletoft took his doctor's degree in divinity and eventually became vicar of St. Lawrence Jewry, where he continued to preach until he was over 80 years of age. Ward says of him: "He showed a great neglect, if not contempt of riches, and esteemed it sufficient, if he had enough to pass easily through the world, and something to spare for good and pious uses.

Henry Paman (1679–1689) became a doctor both of medicine and laws at Cambridge, where he was Public Orator and Master of the Faculties. He also took the degree of Doctor of Medicine at Oxford, became a Fellow of the Royal Society, a Fellow of the Royal College of Physicians, and delivered the Harveian Oration in 1688. He enjoyed the friendship of Sydenham, who addressed one of his published writings to him. His only printed medical treatise seems to have been an epistle written to Sydenham just before he became himself Gresham professor. He resigned his professorship six years before his death.

Edward Stillingfleet (1689–1692), the son of a learned but militant Bishop of Worcester, became a Doctor of Medicine at Cambridge and was elected a Fellow of the Royal Society. After holding his post at Gresham College for less than three years he resigned it in order to marry, and he, too, went into Holy Orders after marriage and died as a Norfolk rector.

He does not seem to have risen to any great eminence in either of his professions. He offended his father by his Jacobite opinions and by marrying against the Bishop's wishes.

John Woodward (1692–1728) on leaving school at 16 was apprenticed to a linen-draper in London, but escaping from that uncongenial employment he devoted himself entirely to study until he met with Dr. Barwick, physician to Charles II., who took him into his own house and for four years gave him instruction in anatomy, medicine, and other sciences. His patron obtained for him at the age of 26 the Gresham professorship of physic. In the following year he became a Fellow of the Royal Society and was often elected on its council, for his geological writings had already gained him a considerable reputation. He was created Doctor of Medicine by Tenison, Archbishop of Canterbury, in 1695, and afterwards received a similar degree at Cambridge. He became a Fellow of the College of Physicians, and also Censor and Goulstonian lecturer. As a practitioner Woodward seems to have relied chiefly on emetics and purges, and he is only remembered in medical circles in consequence of his controversy with the "princely" Dr. Mead and Dr. Freind on the utility of purging in the secondary fever of small-pox. Several abusive pamphlets were circulated on the subject and one day Mead and Woodward met accidentally under the gate of Gresham College and fought a duel. Several accounts of this duel have been published. One new to me has lately reached me through the kindness of Dr. J. F. Payne. It appeared in *The Weekly Journal or British Gazetteer* of Saturday, June 20th, 1719. As the account was written by Woodward it does not give Mead's version of the story. Woodward says that an accidental fall during the duel put him at Mead's mercy, when he was driving Mead before him. Afterwards Mead upbraided him with not having asked his life; Woodward replied that Mead had shown himself a coward and added: "that had he been to have given me any of his Physick, I would rather than take it have asked my life of him; but for his sword, it was very harmless; and I was ever far from being in any the least apprehension of it."

Woodward seems to have been somewhat quarrelsome, for in 1710 he was expelled from the Royal Society for conduct unbecoming a gentleman. Sir Hans Sloane, the celebrated physician and naturalist, was reading a paper before the society, when Woodward made some grossly insulting remarks. Sir Hans complained, and stated that this was not the only occasion on which Woodward's conduct had been offensive. Woodward was required by the Fellows to apologise but refused and was therefore expelled. Sir Isaac Newton was in the chair when the question of expulsion was discussed; and when it was pleaded in Woodward's favour that he was a good natural philosopher Sir Isaac remarked that "in order to belong to that society a man ought to be a good moral philosopher as well as a natural one." Woodward brought an action against the council to get reinstated but was unsuccessful. His merits as a geologist were of a very high order and the Woodwardian Professorship and Museum at Cambridge still exist as memorials alike of his learning and his munificence. He was also well versed in botany and was one of the founders of experimental plant physiology. He died at Gresham College and was buried near Sir Isaac Newton in Westminster Abbey, where his monument may be seen. During Woodward's residence in Gresham College he had as colleagues in the chair of rhetoric Charles Gresham, F.R.S., a kinsman of our founder, and John Ward, LL.D., F.R.S., F.S.A., the author of "The Lives of the Professors of Gresham College," published in 1740, a valuable biographical work upon which I have freely drawn in preparing this lecture.

Henry Pemberton (1728–1771), mathematician and physician, began his studies under the care of John Ward, Gresham professor of rhetoric, who was then a schoolmaster. On choosing the profession of medicine he went to Leyden to study under Boerhaave who was the most eminent physician of his time. From Leyden he proceeded to Paris to continue his mathematical and anatomical studies and thence to London, where he attended the wards of St. Thomas's Hospital in order to become acquainted with English practice. At the age of 25 years he took the M.D. degree at Leyden and on his return to London became the intimate of some of the most distinguished men of the day, including Sir Isaac Newton and Dr. Mead. He assisted the former in preparing the third edition of the "Principia" and in writing an account of his philosophical discoveries, while the latter had his literary assistance in his "Treatise on the Plague." He became Professor of Physic at Gresham College at the age of 34 years, but delicate health prevented his entering actively on the duties of medical practice. In 1746 the fifth London Pharmacopœia appeared as practically a new work, for the former editions were more mediæval than scientific. The first London Pharmacopœia was printed in 1618, just one century after the foundation of the College of Physicians, and was a small folio of 184 pages; its formulæ were distinguished for the multiplicity of inefficient substances massed together; no less than six contained more than 40 ingredients, and one consisted of more than 130 constituents.

Thanks to Pemberton, who was one of the best chemists of his age, and who devoted seven long years to chemical and pharmaceutical experiments necessary for the purpose, the fifth Pharmacopœia may be considered the first scientific one published in this country. On the eve of its appearance Dr. Mead reminded the College of Physicians of Dr. Pemberton's valuable services, and considered that these entitled him "to a suitable acknowledgment such as might be worth his acceptance, not as an operator, but consistently with his true character as a gentleman, scholar, philosopher, and physician." It was then resolved that Dr. Pemberton should have the copyright of the new Pharmacopœia, the sum of 100 guineas, and be reimbursed for all his expenses. Three years before his death the trustees sold Gresham College to His Majesty's Government for a paltry £500 a year, they contributing £1800 towards the expense of pulling down the college and building an Excise Office on the spot. As a necessary consequence of this unfortunate decision the professors were obliged to vacate the college and were granted £50 per annum in lieu of residence. But Dr. Pemberton seems to have refused these terms and would not leave until he was granted a further sum of £50 per annum, free of all taxes and deductions. He died at the age of 76 years, having been a voluminous writer all his life. His contributions to the Transactions of the Royal Society, of which he was a Fellow, extend from the thirty-second to the sixty-second volume.

Thomas Healde (1771–1789) was a Doctor of Medicine of Cambridge, a Fellow of the Royal Society, and physician at the London Hospital. He was a Fellow and Censor of the College of Physicians and seems to have delivered all possible lectures there—Gulstonian, Harveian, Croonian, and Lumleian. He died in 1789 in very reduced circumstances, leaving his widow and family in the greatest destitution. The College granted his widow a special bounty of £100 and helped to start her as midwife. He was the first of the Gresham professors of physic who was allowed to be married.

Christopher Stanger (1789–1834) began his medical education by an apprenticeship to a surgeon at Newcastle-upon-Tyne, after which he proceeded to Edinburgh, where he took the degree of Doctor of Medicine. He then spent four years in visiting the more celebrated medical schools on the continent, Paris, Montpellier, Vienna, Göttingen, and Leyden. On settling in London he became a Licentiate of the College of Physicians, Gresham Professor of Physic, and physician of the Foundling Hospital. He retained his professorship until his death at the age of 75 years. Munk says that he was a person of extensive attainments and great energy of character, and he obtained much notoriety in his day in consequence of his contest with the College of Physicians, for he maintained that it was the right of every well-educated London physician of fair character and mature age to be admitted a Fellow of that corporation, if found competent. The case was argued in the Law Courts for three days in 1797, but his petition was unanimously rejected.

The Gresham professors have occupied the chair of Physic, since its foundation, for an average period of more than 20 years each, while two of them, Pemberton and Stanger, each held their post for more than double that time.

Henry Herbert Southey (1834–1865) was the brother of Robert Southey, the poet-laureate. He began the study of medicine under a surgeon at Norwich, and at the age of 20 proceeded to Edinburgh where he acquired an unusual facility in the use of Latin, which he wrote and spoke fluently. This accomplishment was fully valued at Edinburgh and gave him a reputation which caused his society to be sought after by some of the best of his contemporaries. He retained his fondness for Latin all through his life and seldom failed to carry in his

pocket either Horace or Virgil, or the letters of the elder Pliny. He graduated Doctor of Medicine at Edinburgh, settled as a physician at Durham, and then moved to London, where he successively became physician to the Middlesex Hospital, physician in ordinary to George IV., physician extraordinary to Queen Adelaide, Gresham professor of physic, which office he held until his death at the ripe age of 82, and Commissioner in Lunacy. Oxford University conferred upon him the honorary degree of Doctor of Civil Law, he was a Fellow of the Royal Society, and at the College of Physicians he became Fellow, Censor, and Harveian Orator.

According to Sir Thomas Watson, Dr. Southey was not unworthy of the name that his elder brother, the poet, had made famous. He was a great favourite among his acquaintances and friends, and on at least three occasions valuable legacies were bequeathed to him by men who were bound to him by no ties of blood or of professional obligation. As a consequence of his official appointment his practice lay chiefly, though not exclusively, among the insane. He lived in Queen Anne-street. He became an Elect of the College of Physicians in 1848 and lived to see the abolition of that order in 1860. The Elects were eight seniors of the College, who for more than three centuries, by a special statute of Henry VIII., had annually elected the President. Since 1860 their functions have reverted to the whole body of Fellows, as was originally the case under the provisions of the Charter.

Henry Powell (1865–1867), after studying at Guy's Hospital, took his M.D. degree at Oxford in 1839 and in the following year became a Fellow of the Royal College of Physicians. He successively became physician to the Tunbridge Wells Dispensary and Infirmary, senior physician to Coventry Hospital, and consulting physician to Rugby School. He died on May 18th, 1867, aged 58. I have not been able to find that he made any contributions to medical literature.

Edmund Symes Thompson (1867–1906), son of Dr. Theophilus Thompson, F.R.S., was born in 1837 and became a scholar and gold medallist at the University of London, where he took his M.D. degree, a Fellow of the College of Physicians, assistant physician to King's College Hospital, consulting physician to the Brompton Hospital for Consumption, and a Fellow of many scientific societies. His first Gresham lecture was delivered on Nov. 6th, 1867, at 1 P.M., which was then the appointed hour. Following in the steps of his 14 predecessors, his Latin lecture was followed by one in English, until 1876, when the Latin discourse was discontinued on account of the small audience. I am told that those who attended the Latin lecture were chiefly masters and "Grecians" from Christ's Hospital and St. Paul's School, both then within the City limits, and that they were more interested in the style of the dead language than in the matter of the lecture. The attendance, however, at his lectures in English averaged more than 200, a sufficient proof of his popularity. His last lecture was given on April 27th, 1906, for he was taken ill in August and died on Nov. 24th of that year. His memory is yet very green in the minds of his friends and I may refer others who want to know more of his life's work to the obituary notices of only a year ago.

"Were honour to be scann'd by long descent
From ancestors illustrious, I could vaunt
A lineage of the greatest, and recount
Among my fathers, names of ancient story,
Heroes and god-like patriots, who subdued
The world by arms and virtue;
But that be their own praise:
Nor will I borrow merit from the dead,
Myself an undeserver."

—*Nicholas Rowe.*

A MEDICAL OFFICER OF HEALTH FOR WORTHING.—Mr. R. H. Wilshaw, M.B., Ch.B. Vict., D.P.H., was on April 16th appointed medical officer of health of Worthing and East Preston at a salary of £250 per annum and an additional £250 per annum for services in connexion with the Worthing isolation hospital and the medical inspection of school children in Worthing. Dr. Wilshaw is really Worthing's first medical officer of health, the borough heretofore having been included in a combine including the whole of West Sussex. East Preston is the union district in which Worthing is situated. Dr. Wilshaw is at present deputy medical officer of health of Southport.

The Hunterian Lectures

ON

THE ANATOMY OF THE LONG BONES RELATIVE TO CERTAIN FRACTURES.

Delivered before the Royal College of Surgeons of England on March 9th and 11th, 1908,

BY RALPH THOMPSON, CH.M. VICT., F.R.C.S. ENG.,

ASSISTANT SURGEON, VICTORIA HOSPITAL FOR CHILDREN, CHELSEA; DEMONSTRATOR OF ANATOMY, GUY'S HOSPITAL; HUNTERIAN PROFESSOR, ROYAL COLLEGE OF SURGEONS OF ENGLAND.

LECTURE II.[1]

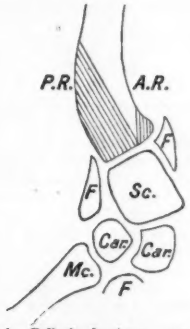
Delivered on March 11th, 1908.

MR. VICE-PRESIDENT, LADIES, AND GENTLEMEN,—It is evident that in fractures of the neck of the thigh bone a knowledge of the internal structure of the upper end of the femur is essential to a complete understanding of their anatomical cause and results. This is no less necessary with regard to other bones, and if some of the points which it is proposed to consider be, on the one hand, self-evident or, on the other hand, familiar, their mention will be at once excused, as he who sets out to discuss questions of this nature must of necessity discuss these points; in the first place, the way in which the main pressure is transmitted through the bones of the limbs must be stated clearly; in the second place, the influence of this pressure upon the internal structure of bone must be shown; and, in the third place, the influence of these lines of pressure upon the lines of fracture which occur in various sites must be demonstrated.

COLLES'S FRACTURE.

The bones of the forearm may first be considered with especial reference to the exact anatomy of Colles's fracture. When a coronal section of a radius which has been macerated is examined pressure lamellæ will be found to pass up the bone from the lower articular surface in two main bundles, the adjacent parts of which interlace with each other below. One series passes into the inner side of the bone and another series into the outer, of which series perhaps the latter are better developed. Both these series lie practically at right angles to the articular surface which is, of course, curved. When a

FIG. 11.



Parts concerned in Colles's fracture. P.R. and A.R., the posterior and anterior surface of the radius. Sc., Scaphoid. Car., Carpus. Mc., Metacarpus. F. F. F., Folds of fat.

sagittal section is examined two series of lamellæ may be observed, the first a small series passing from the anterior half of the articular facet of the lower end of the radius to the anterior surface of the bone; these are hardly longer in their greatest length than half an inch. The more important series pass from the posterior half of the carpal articular facet for a distance in their greatest length of nearly one and a half inches. These join the posterior surface of the

[1] Lecture I. was published in THE LANCET of April 18th, 1908, p. 1127.

radius. A sagittal section of the parts concerned in Colles's fracture shows that the articular surface of the radius is set obliquely on the shaft. This obliquity may in some cases be due to a curve of the lower end of the radius, so that the concavity of the curve is directed forwards. Although this curve and the obliquity of the carpal articular surface may be in favourable specimens seen in the uncut bone, yet they are much better demonstrated in the bone which has been cut in a sagittal direction. The line of fracture, which is frequently transverse from side to side in that variety of fracture which is associated with the name of Colles and which is directed obliquely from behind downwards and forwards, is explained by a reference to the anatomy of the lower end of the radius. The curve forwards of the radius must be considered as an important factor in the production of the fracture at the lower end. Another important factor is the shifting of the main pressure from the hand through the radius and interosseous membrane to the ulna and so to the humerus. The essential element in the direction of the line of fracture consists in the presence of the pressure lamellæ passing mainly up to the posterior surface of the radius from the posterior part of the carpal articular facet. The question now arises as to whether the fracture begins on the anterior surface or on the posterior surface.

A reference to the breaking of a rod of steel or wood will help us to appreciate this point. If a rod be subjected to a breaking strain from each end there is a tendency first for the bar to bend and then to break. It is clear that the parts of the bar on the concave side of the curve will be compressed and that the parts on the convex side of the curve will be elongated the fracture first takes place on the convex side of the curve and later on the concave side. This statement of the results of a break in a bar of steel or wood is well illustrated in that variety of fracture known as greenstick fractures where the smash only occurs on the convex side of the curve and is then deflected up and down the shaft of the bone. If now we consider this section of the parts concerned in Colles's fracture, and which has passed through the trapezoid and scaphoid bones we see that the main pressure is transmitted through the posterior part of the radius. When a breaking strain is applied the anterior or concave part of the radius, which really corresponds to the convex side of the bar, is put upon the stretch and smashes first, and then the line of fracture is diverted along the course of the pressure lamellæ—i.e., along the grain of the bone. Hence the obliquity of the line of fracture from, as one would now prefer to describe it, below, obliquely upwards and backwards. The transverse line of fracture may be explained by the fact that in coronal sections of the bone the lamellæ are not nearly so pronounced as in sagittal sections and therefore will not affect the line of fracture to any marked extent.

FRACTURES IN THE REGION OF THE ELBOW-JOINT.

I now propose to consider one or two points in connexion with the bones of the elbow-joint. I would first ask you to consider the carrying angle. By means of this carrying angle the forearm is inclined outwards from the humerus when the limb is extended at the elbow-joint. Many explanations of this carrying angle have been given and references made to paper models in order to demonstrate the reason of its disappearance when the elbow-joint is flexed. I think, however, the carrying angle is of even more interest than it is credited with. The trochlear surface of the humerus is really a section of a spiral, but if the edges of the spiral were of equal height, owing to the direction of the spiral, which is from behind downwards and inwards, any angle which the forearm made with the arm would be inwards and not outwards. The carrying angle is formed entirely by the prominence of the inner lip of the trochlea below. The direction of the spiral and the prominence of the inner lip of the trochlea will therefore form two opposed forces, one tending to direct the forearm inwards, the other tending to direct it outwards—the force exerted by the internal lip of the trochlea prevails. We may therefore conclude that, even if the opposed surfaces of the elbow joint were in contact during the whole range of movement, great pressure would be exerted upon the inner lip of the trochlea as the arm was passing from the flexed to the extended position. This is therefore probably the cause of the smash of the internal condyle with the adjacent portion of the trochlea. I have reason, moreover, to believe that from sections of the flexed elbow-joint the inner lip of the trochlea is not in close contact with the corresponding part of the greater sigmoid cavity of the ulna. There appears, indeed, to be a fold of synovial membrane lying between the adjacent surfaces, and the external lip of the trochlea appears to bear the pressure through the flexed joint. As the joint is moved, therefore, from the flexed to the extended position the main pressure appears to shift from the external to the internal condyle. This observation is further borne out by a reference to the internal structure of the humerus. (Figs. 12, 13, and 14.)

FIG. 12.

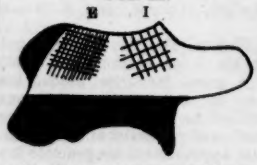


FIG. 13.

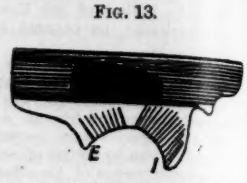
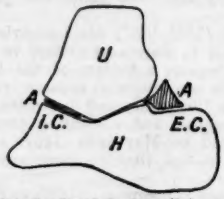


FIG. 12 shows pressure lamellæ supporting the internal and external lips of the trochlea when the elbow-joint is flexed. Note the stronger lamellæ supporting E., the external lip. Scale rather more a third life size.

FIG. 13 shows pressure lamellæ supporting the internal and external lips of the trochlea when the elbow joint is extended. Note the stronger lamellæ supporting I., the internal lip. Scale nearly life size.

FIG. 14.



Flexed elbow-joint (hardened in formalin). A, A., Folds of synovial membrane. U., Ulna. H., Humerus. I.C. and E.C., the external and internal condyles. Scale rather less than half life size.

In dealing with fractures in this region we may well ask ourselves why the coronoid process is not more frequently fractured. In the last edition of Sir John Erichsen's "Science and Art of Surgery" he deliberately forbears to speak of the symptoms. Skiagraphy has, however, revealed that what no less an authority than Hamilton considered as of very doubtful occurrence—namely, fracture of the coronoid process—does occur. Mr. E. W. H. Shenton tells me, however, that in most of his cases only the tip of the coronoid process is broken off.

Let us now consider the structure of the upper end of the ulna. In this diagram we see that the coronoid process is not so much a process relative to the shaft of the ulna as it is relative to the greater sigmoid cavity, and that it is supported by an enormously strong series of bars which pass into the anterior surface of the bone. The lamellæ which pass from the anterior surface radiate, as is usual, at right angles from the articular surface. Those from the upper part of the articular surface pass into the posterior surface of the shaft. The thick compact tissue on the posterior surface merges into the thin compact tissue of the olecranon process suddenly, no doubt predisposing to fractures of the olecranon. The lamellæ of the coronoid process which come from the lower part of the articular surface pass into a buttress of bone on the anterior surface of the shaft of the ulna. Fracture of the coronoid would, therefore, partake of the nature of a vertical smash of a long bone which is a variety of fracture not common. The enormous strength of the coronoid process is therefore much more apparent when we regard its internal structure. (Fig. 15.)

FRACTURES OF THE UPPER END OF THE HUMERUS AND OF THE CLAVICLE.

I must now pass to the consideration of certain anatomical points which have an important bearing upon the question of fracture occurring in the upper end of the humerus. First, let me briefly refer to some clinical details in connexion with fracture of the surgical neck of the humerus. This particular form of fracture may occur as a result of a fall upon either the abducted limb or upon the adducted limb. It may also occur—and in the cases collected for me very kindly by Mr. Martyn Lobb from the

records at Guy's Hospital during the past five years it more frequently occurs than by other means—following upon a direct injury such as a fall or a blow upon the shoulder. Now, when a man falls upon his outstretched hand with the upper limb either in the abducted position or the adducted position the fracture is said to be due to indirect violence. If, however, the man falls upon his shoulder the fracture is said to be the result of direct violence. The fracture more often occurs in people of middle age or in older people. Fracture of the surgical neck of the humerus may occur in young children, as in a girl under the care of Mr. C. H. Golding-Bird who kindly allowed me to take charge of the case. Those fractures of the surgical neck of the humerus occurring in young people must be carefully distinguished

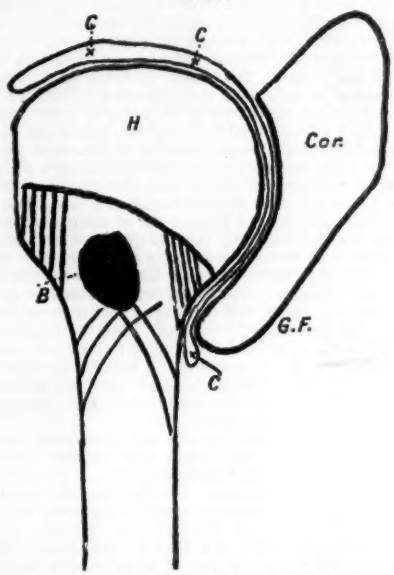
FIG. 15.

Upper end of ulna. O., Olecranon process. C., Coronoid process. G. S. C., Great sigmoid cavity. Scale life size.

from separation of the upper epiphysis of the humerus, as the prognosis is materially affected by this diagnosis. Fracture of the surgical neck of the humerus in young people if properly treated need not lead to shortening of the limb. Separated epiphysis, however well treated, may do so. The line of the upper epiphysis of the humerus is about half an inch above the surgical neck of the humerus.

I shall now refer to a coronal section of the upper end of the humerus and indicate the changes which take place in it with advancing age. From the upper part of the inner surface of the shaft of the humerus vertical lamellæ may be observed passing up into the head and reaching the articular surface. These lamellæ are supplemented by other lamellæ which, starting in the same region, pass into the head further out than these lamellæ and also into the great tuberosity. A well-marked series of lamellæ pass into the head from the outer surface of the shaft as well as into the tuberosity. These last series may be considered to be tension lamellæ, the first series as pressure lamellæ, and they are exactly analogous to those seen in a coronal section of the upper end of the femur. Fat is also deposited where the lines of tension and pressure are less useful, as in the femur, and a definite fatty patch is formed in some cases as much as one inch long by half an inch broad, the centre of which is just opposite the surgical neck of the humerus. This fatty patch is one cause, so far as the internal structure of the bone is concerned, of fractures in this region. I must now direct your attention to this specimen of a formalin-hardened shoulder-joint, in which the arm was nearly brought down to the side but not completely or over-adducted. (Fig. 16.) The shoulder-joint will be found to be prolonged upon the surface of the upper end of the humerus so that there is a pouch of synovial membrane bounded by the capsule of the joint. This pouch is triangular with its apex downwards and is about three-quarters of an inch deep. Save at its upper part it is not, so far as my dissections give information, attached directly to the neck of the humerus, but can be easily stripped off it except at its upper part. Now although this pouch of the shoulder-joint may be developed in connexion

FIG. 16.



Upper end of (H) humerus and scapula. Cor., Coracoid process, showing parts concerned in fracture of the surgical neck of the humerus. C. C. C., Cavity of shoulder-joint. B, Fatty patch in bone. G.F., Inferior lip of the glenoid fossa. Scale life size.

with the very loose capsule of the joint and is really merely a fold of this capsule and synovial membrane, it has a very definite and useful function. When the arm is fully adducted to the side the inferior lip of the glenoid fossa comes into forcible contact with the surgical neck of the humerus.

In the normal scapula placed in the correct position the inferior lip of the glenoid fossa is much more prominent than the upper lip owing to the oblique position of the glenoid fossa. In the adducted position of the upper limb, then, the inferior lip of the glenoid fossa is in contact with the surgical neck of the humerus. Now in this adducted position flexion and extension of the shoulder-joint are possible as well as internal or external rotation. The surgical neck of the humerus is thus moving in various directions upon the inferior lip of the glenoid fossa, hence the prolongation downwards of the synovial membrane and capsule of the shoulder-joint. Now if a scapula be examined the glenoid fossa will be found to be supported by well-marked pressure lamellæ passing from the articular surface of the fossa in two main directions, upwards and inwards into the coracoid process, downwards and inwards into the axillary border of the scapula and to its inferior angle. If the thin parts of the scapula be removed it will be apparent that there are three bars supporting the glenoid fossa or head of the scapula. First, the axillary bar—i.e., the strong axillary border; secondly, the coracoid process or coracoid bar, which passes upwards and inwards from the glenoid fossa and may be considered to terminate in the thick and massive proximal part of the coracoid process; and thirdly, the spinous bar, which passes almost directly inwards from the glenoid fossa and forms the base of the spine of the scapula. This is much less strong than the axillary or coracoid bars. Now the lamellæ which pass from the lower half of the glenoid fossa and which are displayed in this representation of a coronal section of the scapula are very prominent and strong and give considerable support to the inferior lip of the glenoid fossa which comes, as we have seen, into contact with the surgical neck of the humerus. When, therefore, a man falls either directly on to his shoulder or with his

arm adducted and fixed to his side the inferior lip of the glenoid fossa comes into forcible contact with the surgical neck of the humerus. There are here four specimens of fracture of the surgical neck of the humerus showing that the line of fracture is transverse and that it lies opposite the point of contact between the inferior lip of the glenoid fossa and the surgical neck of the humerus.

Now fracture of the surgical neck of the humerus may be associated with dislocation of the humerus from the glenoid fossa and a correct appreciation of the strength and position of the inferior lip of the glenoid process, which may be termed the glenoid buttress, helps to explain this not infrequent occurrence. But whilst it helps to explain the occurrence of a dislocated shoulder with a fracture of the surgical neck of the humerus it explains very well the occurrence of a fracture of the surgical neck of the humerus in conjunction with the reduction of a dislocated shoulder. In, for example, Kocher's method of reduction of a dislocated shoulder directions are given that the shoulder shall be adducted. At this time also the humerus is being flexed and internally rotated and the inferior lip of the glenoid fossa is therefore not only coming into forcible contact with the surgical neck of the humerus but is also exerting a cutting action. It will be well, therefore, for those who scoff at the method of reducing a shoulder-joint by exerting pressure upon the humerus with the stockinged foot to remember the existence of this glenoid buttress. One well-known provincial surgeon, now dead, held that it was not necessary for a surgeon to know anatomy. I venture to think that knowledge of this glenoid buttress and its relation to fractures of the surgical neck might save much trouble both to the patient and to the operator.

Of course, we must take into account at least two points in connexion with this anatomical fact—namely, that the inferior lip of the glenoid fossa comes into contact with the surgical neck of the humerus. The first may be put in the form of a question. Is not the scapula a moving bone and therefore is it likely that the humerus will impinge with sufficient force to smash the limb? The answer to this question is that when the arm is stretched out behind one with the limb adducted to the side the scapula is fixed and that not only is the force of the actual adducting force to be taken into account but also the pressure of the fall either on the hand or on the shoulder. Moreover, even if the scapula be moving, as it might conceivably be in reduction of a dislocation under an anæsthetic, if it be not moving so quickly as the humerus there will be the possibility of the humerus, so to speak, catching up the scapula, and the surgical neck coming into forcible contact with the inferior lip of the glenoid fossa. Two trains, one going at 60 miles and the other at 30 miles an hour, even if they be going in the same direction, will cause serious results if they happen to come into contact. Secondly, fracture of the surgical neck is frequently said to be due to muscular violence. The relation of the inferior lip of the glenoid fossa to the surgical neck of the humerus will afford an additional explanation of why this is possible. For the humerus will be broken over the inferior lip of the glenoid process as a stick is broken over the knee.

I have drawn your attention to the well-marked coracoid and axillary bars of the scapula which support the glenoid fossa and into which definite long lamellæ may be traced. By what are these bars supported? The axillary bar is supported by all the muscles attached to the scapula which pass to it from the trunk, notably the serratus magnus, trapezius, and latissimus dorsi.

FRACTURE OF THE CLAVICLE.

The coracoid bar is, however, rather differently supported, and we must pay some attention to this, as I hope to show that these supports are of great importance, especially in connexion with fracture of the clavicle. Now Mr. Lane has shown that in labourers who are in the habit of carrying considerable loads upon their shoulder the back part of the upper surface of the coracoid process is actually in contact with the clavicle. There may be a facet in the macerated bone indicating this condition. I would however, venture to go further than this and say that in some cases in which particular occupation has played no part the coracoid process may be situated either in direct contact with the clavicle or so close to it that the tip of the index finger can hardly be introduced between the two bones. We may therefore conclude that the clavicle, fixed as it is at or near its sternal end by the interarticular fibro-cartilage and the rhomboid ligament, offers some support to the coracoid process when the coracoid bar is thrust upwards. Now if a swing inwards of the axillary bar takes place as well as an upward thrust of the scapula, and with it the coracoid bar be added to this inward swing, it will be clear from this model that the coracoid process is jammed against the clavicle between, or in the region of, the conoid and trapezoid ligaments. Now Mr. Henry Morris, Professor D. Hepburn, and other authorities have rightly laid stress upon the exact position of the surfaces of the trapezoid ligament. The surfaces are not anterior and posterior but are obliquely set, so that the so-called anterior surface looks upwards, inwards, and forwards, and the posterior surface looks downwards, outwards, and backwards. In one specimen which I show the surfaces hardly face forwards or backwards at all. If this position of the trapezoid ligament be accepted as correct it can hardly be considered to have much influence in suspending the scapula from the clavicle.

Now in the lower end of the radius and the upper end of the ulna and the two extremities of the humerus, as well as in the glenoid fossa of the scapula, it may be demonstrated that there are well-marked pressure lamellæ. We may therefore argue that if these bones indicate by their internal structure certain pressure lamellæ the pressure that is transmitted through them can hardly stop before reaching the clavicle but is transmitted into the clavicle in certain circumstances.

Of course, pressure may be transmitted through the acromion process and acromio-clavicular joint to the clavicle. Now how is this pressure transmitted through the coracoid process to the clavicle? Forcible contact without corresponding pressure lamellæ being developed would hardly be considered a good way of transmitting pressure to the clavicle, especially as the clavicle is such a slender bone and fixed by such strong ligaments at its inner end. Now I said that pressure might be transmitted through the acromion process to the clavicle, but there are two points in connexion with this statement that I would draw your attention to. First, the obliquity of the acromio-clavicular joint. There is rarely the same degree of obliquity in the articular surfaces of the acromion and clavicle. This is allowed for by the presence of a triangular fibro-cartilage and by the oblique position of the acromion process itself. The upper surface of the acromion process also looks backwards and outwards and the clavicular articular surface on its inner border looks upwards and inwards. Therefore if pressure be transmitted through the scapula and the clavicle the acromio-clavicular joint is not best adapted for such pressure. The second point is that if pressure be transmitted through the glenoid fossa and clavicle there is hardly any pressure exerted through the acromio-clavicular joint at all, the cartilage which lies between the clavicle and acromion process is not compressed even when great pressure is made, and if less than great pressure be used the synovial cavity on each side of the interarticular fibro-cartilage is not diminished in size or altered in shape.

From these considerations we may assert confidently that whilst one function of the conoid and trapezoid ligaments is undoubtedly to prevent underrunning of the clavicle by the acromion, and whilst this may be the only function of the conoid ligament apart from slinging the scapula upon the clavicle the main function of the trapezoid ligament is to transmit pressure passing from the scapula to the clavicle—e.g., when the arm is in the usual thrusting position. It is by the trapezoid ligament which is put upon the stretch that the main pressure which passes from the upper part of the arm to the clavicle does not pass through the acromio-clavicular joint. It is the stretching, or rather increased tension, of the trapezoid ligament when much pressure is transmitted which prevents undue pressure being made upon the acromio-clavicular joint. This, then, is the function of the trapezoid ligament—this its use and object to counteract it may be any tendency to dislocation in the acromio-clavicular joint, but to counteract it by taking the pressure off it.

This function of the trapezoid ligament and the part which it and the coracoid process play in transmitting pressure from the humerus and scapula to the clavicle is further illustrated by the internal structure of the clavicle (Fig. 17), which in two specimens I have here displays an arrangement of bony lamellæ in exact accordance with the function of the coracoid process and the trapezoid ligament. The compact tissue is thin over the surface of the outer inch of the bone and is joined by arching lamellæ interlacing with each other

at right angles. These individual lamellæ are arched so as to form, as Professor Arthur Thomson points out, a series of Gothic arches. Internal to this portion of the bone the compact tissue on the surface of the bone becomes much thicker and the cancellous tissue is arranged in a series of thick and massive lamellæ running nearly parallel with the main direction of the bone from without inwards and from the upper to the lower surface. The compact tissue of the lower surface is very much thicker than the upper. Very

FIG. 17.

Longitudinal section of right clavicle showing its internal structure. A. Fatty patch. B, Main pressure lamellæ. C, C, Pressure lamellæ of sternal end. Scale, half life size.

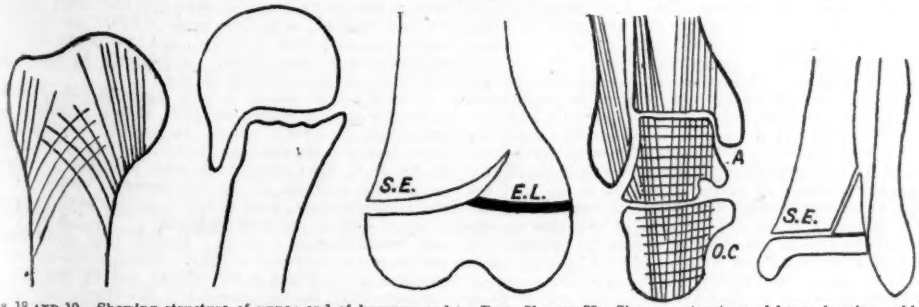
small pressure lamellæ are developed in the ends of the bones forming the acromio-clavicular joint in contradistinction to the well-marked pressure lamellæ in the inner end of the bone. The arrangement, therefore, of the compact and cancellous tissue changes very materially in the region of the trapezoid ligament. We may therefore fairly conclude that it is only that part of the clavicle which lies internal to the trapezoid ridge which transmits pressure to the trunk from the upper limb. This, then, is the reason of fractures being more common, especially by indirect violence, in the middle third of the clavicle than in the outer third. The outer part of the clavicle transmits but little pressure from the upper limb to the trunk.

The outer part of the clavicle is said to be more frequently broken by direct violence, but it is a relatively rare form of fracture, and if we refer to the acromio-clavicular articulation we shall, I think, understand the reason of this. Between the clavicle and the acromion process there is a triangular fibro-cartilage which diminishes the effect of a blow struck upon the acromion process externally, but we may well inquire here why is this fibro-cartilage triangular. Although the articular surface of the clavicle which forms part of the acromio-clavicular joint is set obliquely to the shaft, in other words, is bevelled at the expense of the under surface of the clavicle, we rarely find a corresponding obliquity, or rather bevelling, on the acromial articular surface. The upper surface of the acromion looks also outwards—the lower surface also inwards—so that the acromion is set at an angle with the clavicle open downwards. The clavicular surface of the acromion is not vertical but it is not obliquely set upon the acromion process but at right angles. The upper and lower edges are, in other words, square with the upper and lower surface of the acromion. The obliquity of the clavicular surface is less inclined from the vertical than is the articular surface on the acromion, and so an angle is left which is filled up by the triangular fibro-cartilage.

Another clavicle which I have sawn across shows a most interesting condition of affairs. Here I know that the coracoid process was in contact with the clavicle just in front of the conoid tubercle, a well-marked bursa intervening. There is a corresponding depression on the under surface of the clavicle just in front of the conoid tubercle, and when a section is made of the clavicle there is a solid bar of bone passing over the greater part of the thickness of the clavicle in this region—i.e., where the coracoid process impinged against it the lamellæ have disappeared as separate entities and the cancellous tissue is replaced by compact tissue. This clavicle, which was certainly actually resting upon the coracoid process, belonged to a man whom I found afterwards was a cab-driver. He therefore belonged to a class of men who are not accustomed to bearing heavy weights upon their shoulders; in fact, so far as my experience goes, they, as a rule, resent being asked to bear heavy weights on any part of their anatomy. It has been clearly demonstrated that pressure passing through the upper limb is transmitted to the trunk through the inner two-thirds or a little more of the clavicle. This has an important bearing upon fractured clavicle as regards the anatomical cause for it. All authorities are agreed that the most common position of a fracture of clavicle is in the middle third. Sir Frederick Treves and Dr. A. Keith say that fracture occurs most frequently at the outer part of the middle third of the clavicle. The relation which I have pointed out as existing between the clavicle, coracoid process, and trapezoid ligament explains the occurrence of the fracture in this region. The tension of the trapezoid ligament, the tendency of the coracoid to impinge against the clavicle, the intimate relation and strong attachment of the coraco-clavicular ligaments as a whole produce a bending of the clavicle in this position, and if the force be continued a fracture. I have here a specimen which I fractured experimentally and the fracture is in this position. The position of the fragments in cases of green-stick fracture would be interesting in this connexion. Fracture of the clavicle between the conoid and trapezoid ligaments is said to occur usually as a result of direct violence. Mr. Arbuthnot Lane, however, is of opinion that such fractures are frequently due to indirect violence—that is, by a blow upon the outstretched hand. Now with regard to the first statement, pathological specimens of fracture between the conoid and trapezoid ligaments are relatively rare, and this is not to be wondered at, for although the conoid and trapezoid ligaments may be separated from each other by a careful dissection—they are practically continuous, and it would require rather a precise and delicately balanced form of external direct violence to produce a fracture in this region.

With regard to the second statement I have, I hope, shown that when the blow is received upon the outstretched hand the coracoid process may impinge forcibly against the clavicle. If this be so, and we can scarcely doubt it, we have in these cases of fracture of the clavicle between the conoid and trapezoid ligaments the impinging force applied in this region. Here again, therefore, like the fracture of the surgical neck of the humerus, we have as it were direct violence applied from within. It is asserted that fractures in this region are never accompanied by displacement, that no displacement is possible. I have here a specimen of fractured clavicle in this region showing that considerable deformity may occur. There is not only displacement but impaction.

FIG. 18. FIG. 19. FIG. 20. FIG. 21. FIG. 22.



FIGS. 18 AND 19.—Showing structure of upper end of humerus and separated epiphysis of upper end of humerus. Scale, about one half life size.

FIG. 20.—Showing separation of lower end of femur. S.E., Separation of epiphysis involving diaphysis. E.L., Epiphysial line. Scale, about one-half life size.

FIGS. 21 AND 22.—Showing structure of bones forming ankle-joint and separated epiphysis of lower end of tibia. A., Astragalus. O.C., Os calcis. S.E., Line of separation of epiphysis deflected upwards and outwards along pressure lamellæ. Scale, about one-half life size.

The conclusions I would put before you as worthy of consideration in respect of the anatomy of the parts relative to fracture of the clavicle are: 1. That no pressure, or very little, is transmitted through the acromio-clavicular joint, even when blows are struck upon the outer edge of the acromion process. This absence of direct pressure through the acromio-clavicular joint is explained by the presence of the trapezoid ligament and its attachment to the coracoid process of the scapula and the clavicle. 2. That the pressure which passes through the coracoid process and the trapezoid materially affects the internal structure of the clavicle. 3. The obliquity of the adjacent surfaces of the acromio-clavicular joint and the presence of the triangular fibro-cartilage still further diminish shock. 4. That by direct impinging of the coracoid process against the clavicle fractures of the clavicle between the conoid and trapezoid ligaments are produced, and that with such fractures not only is displacement possible but that impaction may also take place. 5. That by bending of the clavicle over the coracoid process fracture of the shaft of that bone may be produced.

SEPARATED EPIPHYSES.

The question of separated epiphyses and the influence of pressure lamellæ upon the line of fracture is well illustrated by a reference to these diagrams (Figs. 18 and 19, 20, 21, and 22). Frequently when a separation of an epiphysis takes place the line of solution of continuity does not occupy the total area of the epiphysial line. Thus a portion of diaphysis may be broken off from the main part of the shaft and produce considerable difficulty in reduction of the deformity. If we refer to these diagrams (those representing the clinical features I have copied from the work of Professor Hoffa upon fractures and dislocations) we shall find that the fracture producing separation of the epiphysis in these diagrams of separated epiphysis of the lower end of the tibia, the upper end of the humerus, and the lower end of the femur, has passed along the epiphysial line for two-thirds of its breadth, and has then been deflected along the course of the pressure lamellæ of the bone—in other words, along the grain of the bone.

ON SO-CALLED RHEUMATIC IRITIS.

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IRITIS dependent on rheumatism no doubt frequently occurs, but my experience is that a very large number of cases so called are due to the poison of gonorrhœa and the worst cases with few exceptions have this origin. The history of these cases varies but little. The patient, nearly always a man, comes to the ophthalmic surgeon with iritis and it is probably not the first attack. His age is generally over 30, but he may be younger, and he will give a history of gonorrhœa, often of repeated attacks, but in most cases he will not have had one immediately before the iritis commenced. More likely the last attack will have been some years previously; he may or may not have had so-called gonorrhœal rheumatism; in the majority of cases he has not. The iritis is severe; all the usual symptoms are well marked. Its chief distinguishing features are: it is painful, often severely so, there are swelling of the iris, generally much photophobia, a strong tendency for adhesions to form, though there is no very great amount of exudation, with much ciliary and conjunctival congestion. There are also a decided inclination to contraction of the pupil which strongly resists the action of mydriatics of which there is often a marked intolerance; a tendency to increased tension; a general intractability, rendering treatment most difficult and its results most disappointing; and an unlimited capacity for recurrences continuing through any number of years. It seems to me that the liability continues through the whole of sexual life, an opinion which is borne out by that of the late George Critchett, who was in the habit of telling his patients they would "grow out of it," the truth of which I have been able to verify in one at least of his patients who came under my care; he did grow out of it but not till he was over 60 years of age. I cannot say that I have ever seen a case which I could with certainty say was gonorrhœal iritis in a female, though I have seen some suspiciously like it; and I am not sure that some of the obstinate cases of irido-cyclitis with keratitis punctata so frequently seen in young and middle-aged women may not depend on gonorrhœal infection, though I have no direct evidence to prove it, and some of them are undoubtedly syphilitic.

The question one asks oneself is, Supposing we are right in believing that there is such a thing as gonorrhœal iritis (which there seems to me to be no reason to doubt), how is it brought about? The probability is that in many men who have had gonorrhœa severely and frequently there is left for any number of years in some part of the urino-genital apparatus a very much attenuated virus which gives no trouble locally, but from time to time becomes more active, and though still setting up no local irritation is capable after absorption of causing inflammation in synovial membranes or in the iris; in fact, it looks almost as if the iris becomes on occasions an excretory organ and tries to eliminate the poison, receiving considerable damage to itself in the attempt. There must also be a personal element or an idiosyncrasy in those who suffer, because the proportion of persons who have iritis to those who have had gonorrhœa is very small indeed.

That an attenuated virus capable of infecting which causes no inconvenience to the person affected by it may exist seems to be proved by cases of purulent ophthalmia in female children who are found to have a vaginal discharge from which the eyes have been inoculated and of which no mention has been made. In some of these cases I have the authority of the late Dr. J. W. Washbourn and of Dr. J. W. H. Eyre for saying that gonococci exist in both the conjunctival and vaginal discharges. As further proof I may instance cases of wives (of men who have had gonorrhœa and who have no notion of anything being wrong) becoming infected, not with an ordinary gonorrhœa, but by salpingitis, followed in some cases by septic peritonitis. Here it would appear that the virus, though too weak to infect the vaginal mucous membrane, is powerful enough to infect that of the Fallopian tubes.

The results of gonorrhœal iritis include all those consequent on iritis in its worst forms; synechiæ more or less extensive, occluded and excluded pupil, complete adhesion of the posterior surface of the iris to the lens capsule, *bombé* iris with its attendant evils, capsular cataract, glaucoma, with changes in structure of the iris, and loss of vision varying from slight impairment to total blindness.

Cases.

CASE 1.—A man, aged 42 years, first consulted me in 1884. He had had iritis in both eyes previously on more than one occasion, his left eye being considerably damaged, and years before he had suffered from gonorrhœa frequently. When I saw him he had severe iritis in the right eye, much conjunctival and episcleral congestion, and a good deal of pain. The attack lasted about a month; he then began to get better and was convalescent in the course of a few days. One peculiarity about this case was that as soon as he began to mend he got well almost suddenly. In 1886 I attended him for another severe attack in the same eye. From 1886 up to 1900 he had many attacks, some severe, others only slight and lasting only a few days, but I managed to pull him through them all without any further damage to either eye. In 1903 I saw him and fitted him with glasses; he had had no iritis for three years; vision of the right eye was $\frac{6}{9}$ and there were a few posterior synechiæ; that of the left was $\frac{6}{12}$ with many posterior synechiæ and some opacity on the lens capsule. I saw him again in 1907; the vision of the right eye was $\frac{6}{6}$, with − 50 cyl., and that of the left was $\frac{6}{12}$; he had had no more iritis. Apparently he had "grown out of it" at about 60 years of age.

CASE 2.—The patient, a man, aged 43 years, first came under my care in September, 1893, with a history of severe gonorrhœa some years before. He had had many attacks of iritis, mostly in the right eye. Iridectomy had been performed in the right eye; there were total posterior synechia and some iritic products on the lens capsule; vision = $\frac{6}{12}$. In the left eye there were a few posterior synechiæ; vision = $\frac{6}{6}$, c. − 1 25 cyl. axis horizontal $\frac{6}{9}$. Glasses for reading and distance were ordered. During 1894 and 1895 the patient remained free from iritis. Towards the end of 1896 he had a severe attack in the left eye, but by the middle of January, 1897, he had completely recovered. A few fresh synechiæ had formed but the sight was not damaged. In April, 1898, he had another bad attack which lasted a month, followed by a relapse, which prolonged it for a week. In January, 1899, he had another attack lasting six weeks.

From this time up to October, 1905, he had at least seven attacks, but only two of them were severe, the remainder only lasting about a week. He remained well until August, 1907, when the worst attack I have attended him in commenced and lasted till the middle of October. Up to this attack I had always been able to keep the pupil dilated and recovery took place without damage to sight, but this time the inflammation was most violent, blood-vessels gave way, and he had hæmorrhage in the anterior chamber; all the mydriatics I used caused irritation; there were much pain and frequent rise of tension. I was unable to keep the pupil dilated, extensive synechiæ formed, and the pupil became occluded; vision was reduced to reading J. 12 c. + $\frac{1 \cdot 25 \text{ cyl.}}{4 \text{ sph.}}$; by the beginning of December it had improved to J. 4 and $\frac{6}{9}$ with correction. On the 20th of that month I performed iridectomy and he has since made good progress and his sight is improving. It is worthy of note in this case that up to the time I first saw him the right eye was the one almost always attacked and that after the iridectomy it was slightly inflamed on two occasions only; all the severe attacks for which I treated the patient being in the left eye alone, which had been but rarely attacked before. It would seem almost as if it would have been well to have let the damaged eye alone and allow it to suffer instead of its sound fellow.

CASE 3.—The patient, a man, aged 37 years, was first seen in April, 1906. He had severe iritis in the right eye; this was the first attack. He had had gonorrhœa shortly before and besides the iritis, complained of pain in the joints. The iritis lasted about a month and I did not see him again till Dec. 6th of the same year when he had quite recovered. On Dec. 20th he started a fresh attack which lasted some weeks. I did not see him again till February, 1907, when he had quite recovered from the iritis, but had gleet and complained of pain in his joints. He has got over his two attacks without the formation of synechiæ, but I suspect that this is only the beginning of his troubles. I have strongly advised iridectomy, but up to date (January, 1908) he has not consented to have the operation done.

Treatment.—The treatment of this form of iritis is most unsatisfactory. Mydriatics irritate and rise of tension is of very frequent occurrence, consequently they must be used with caution. I have used atropine, daturine, homatropine, hyoscyamine, and scopolamine in solutions of varying strength and in ointment, but have had difficulties with all of them. If the pupil can be got to dilate fully at the beginning of an attack before much congestion has taken place it is a point gained, but even then there is a great tendency to contraction as the case progresses, and we may experience great difficulty in keeping it dilated, which may be still further increased by a rise of tension.

Heat applied in the form of bathing with simple hot water, solutions of boric acid or other antiseptics, decoction of poppy heads or belladonna lotion, used as hot as can be borne and constantly applied for from 10 to 20 minutes several times in the 24 hours, or by Leiter's coil, electric coil, or heated pads of cotton wool, and covering the eye with hot compresses are all useful, especially in cases where pain is a marked symptom or where there is increase of tension. Blisters I do not care about. Leeches I believe in; three or four applied to the temple often cause a marked decrease in congestion and may act almost like magic in relieving pain.

Before going further let me sound a note of warning against the use of cocaine and allied substances and also of adrenalin. They are constantly ordered to be used frequently and the treatment is flattering both to surgeon and patient, for they reduce vascularity and relieve pain, but their after-effects are positively harmful, for they cause paralysis of blood-vessels and thus add fuel to the fire which they are intended to extinguish. I have no hesitation in saying that none of these should ever be used except for purposes of local anæsthesia and prevention of bleeding during an operation or for the examination of painful or sensitive parts.

The constitutional treatment I have employed has been free purgation and washing out the system by copious draughts of hot water; mercury, iodides, salicylates, and quinine; opium, bromides, aspirin, and hyoscyamus, internally, or hypodermic injections of morphine to relieve pain; visits to Aix-les-Bains, Homburg, Harrogate, Buxton, Bath, and other spas between the attacks; limiting as far as possible the consumption of alcoholic drinks and avoidance of all foods which the patient knows upset his digestion. I cannot say that I am satisfied with the results of the treatment I have adopted.

Salicylates generally I do not think do any good but aspirin relieves pain. Iodides in my experience depress the patient and do no good. Mercury administered by the mouth or by inunctions I believe in, especially in cases where there is exudation, and I am very strongly of opinion that a visit to one of the spas has warded off an attack. Of serum treatment I have no experience but can believe that it might do good. I am not certain about iridectomy but should recommend it in all cases where recurrences are frequent; in cases of excluded or occluded pupil and *bombé* iris its performance is imperative.

Remarks.—Syphilis is responsible for a large number of the ills to which flesh is heir, but I am not certain that gonorrhœa does not run it pretty closely; at any rate, a large amount of misery and suffering may be caused by it beyond the subject of this paper. We have only to look at the multitude of persons blind or partially so from ophthalmia neonatorum and gonorrhœal ophthalmia later in life. Then there are the pain and inconvenience of its initial stage, and if it ended there no particular harm would be done, but it does not. Urethral stricture with all its attendant complications would scarcely exist if it were not for gonorrhœa. Men crippled and incapacitated by gonorrhœal rheumatism, women with health ruined from tubal and uterine affections or dying from septic peritonitis, are a few of the evils which result.

The question which must present itself to all well-balanced thoughtful minds is, Why should these things be? Gonorrhœa and syphilis are preventable diseases and can be stamped out. Why is this not done? Is it from motives of morality—in this case synonymous with hypocrisy—cant, false modesty, fear of interference with the liberty of the subject, or what? Whatever may be the cause the fact remains that men and women are allowed to go about at will suffering from highly contagious and easily communicable diseases without let or hindrance and this in an age of preventive medicine. Venereal disease should be prevented and I would suggest that, as a beginning to the attainment of this much-to-be-desired object, gonorrhœa and syphilis, whether occurring in men or women, should be placed on the schedule of notifiable diseases.

Brook-street, W.

THE INFLUENZA BACILLUS AS A CAUSE OF FATAL ENDOCARDITIS AFTER EIGHT YEARS?

(AN INFLUENZA CARRIER?)

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To Mr. Candy, the ward clerk to the case, I am indebted for the following details of the patient and his last illness.

A man, aged 45 years, married, was admitted to the London Hospital on Dec. 2nd, 1907, in a condition supposed to be a relapse from typhoid fever.

Family history.—The patient has been married 18 years and has had four children. Three have died from diphtheria, bronchitis, and whooping-cough with congestion of the lungs, respectively. One child alive is only eight months old and healthy. The last of the three to die died eight years ago, and the patient has worried over this ever since. The patient's father, aged 74 years, is still living and healthy though he suffers from melancholia, but his mother died 36 years ago from typhus fever.

Previous history.—The patient is a spring-maker in the Great Eastern Railway works. The work is rather hard; he is in the habit of getting up at 5.30 A.M. and knocking off at 5.30 P.M. He drinks about two glasses of ale a day but takes tea only in small quantities. Eight years ago he had influenza followed by nervous debility; for this he was attended by the medical officer of his club and had a nurse at home; the illness lasted six months. Three years ago he had an attack of enteric fever which lasted six months; for this he was also treated at home. One year ago a rash appeared and the patient was in bed for 14 days.

History of present illness.—The attack began two months before admission (approximately Oct. 6th), the symptoms being severe headache, bronchitis, light loose stools, enlarged spleen, typhoid spots, and a temperature ranging from 101° to 99° F. For about two months before this the patient had lost his appetite and had complained of a tired feeling, with pains in the joints, especially in the ankles. These disturbances were accompanied towards the end of this period with fits of shivering, thirst, and inability to speak, this inability to speak lasting perhaps 30 minutes. After being in bed for three weeks (approximately Oct. 27th) the temperature fell to normal and ten days later (Nov. 6th) the patient got up. The temperature rose at once. Ten days later (Nov. 16th) a cardiac murmur was first heard; the typhoid spots were well marked; there was some delirium and slight sweating.

Physical condition on admittance to hospital.—The patient was very pale [Extremely obtrusive anæmia.—F. J. S.] and wasted, was incoherent in his speech, and could only understand and answer the simplest questions. He also suffered from hallucinations, such as believing that his wife was waiting for him, &c. Every movement was tremulous, as was also his speech. The mouth and tongue were parched and coated with a dry brown fur. The breath was rather foul and the skin was dry. The lungs were clear. The apex beat of the heart was in the fifth space, four and a half inches from the mid-sternal line. At the apex a systolic murmur could be heard which did not obliterate the first sound. At the aortic and pulmonary areas the first and second sounds could be heard. The spleen could be just distinguished below the costal margin. There was no tenderness of the abdominal wall, which was somewhat flaccid and showed a few spots not disappearing on pressure. The temperature was 103° and the pulse was 112. The urine showed no albumin, but mucus and urates. The result of an enema contained no solid bodies and was of a general soft consistency hardly fluid; gamboge in colour; it failed to give the guaiacum reaction. Microscopically, pus corpuscles could be distinguished in a rather large amount of epithelial débris. On Dec. 4th some blood was drawn off from a vein. With a sample of this Widal's test was performed. The result was very doubtful. "A dilution of 1 in 100 showed some clumping but not complete in 30 minutes." With the remaining quantity a blood culture was made; the report on this was, "grew a pure growth of influenza bacilli." Ehrlich's test with the urine also gave a negative result. An estimation of the hæmoglobin gave an approximate result of 70 per cent. A few days later a blood count showed the red blood corpuscles to be 1,830,000 and the white corpuscles 6300 (approximately). The blood pressure was 115 millimetres of mercury (taken on Dec. 9th.) The patient showed no inclination for food of any description and had to be cajoled into taking any nourishment.

Progress of the case.—On Dec. 9th it was noted that the lower half of the right lung, both behind and in front, was somewhat dull. Breathing sounds were faint on both sides. By the 11th the spleen was certainly impalpable and on this date also the murmur seemed diminished. On the 13th "there is a loud mitral systolic consisting of (1) a whistling and (2) a rough part" (F. J. S.). This murmur seemed to gradually diminish until by the 20th it was appreciably reduced. The urine showed at first no trace of albumin. On the 6th, however, a trace appeared, and on the 20th there was in a test-tube about one tenth. The temperature was between 100° and 101° up to the 10th; subsequently it dropped to between 99° and 98° from the 14th to the 18th, and on the 20th it was 98·6°. The pulse was on admission 112; on the next day it was 125, and then between 110 and 120 gradually dropping to 104 on the 10th and touching 100 on the 17th and 20th. The further progress of the case offered no point of special interest, and the patient died quietly on Jan. 1st, 1908.

Post-mortem appearances.—Dr. H. M. Turnbull has made a very long report in the hospital records which, from a clinical point of view, offers very few points of material changes. The obvious naked-eye findings were: verrucose endocarditis of mitral valve, large septic infarct in the spleen, pericarditis and pleurisy with some serous effusion, peritonitis with slight sero-purulent effusion, large, pale, mottled kidneys, and the brain somewhat atrophied. Dr. Turnbull's full report is mainly concerned with showing that there was no local focus (such as middle ear, lungs, &c.) to account for what was obviously a case of blood infection with vegetative endocarditis. Sections of most of the organs were cut and stained and showed large numbers of the bacilli found by Mr. F. W. Twort, assistant bacteriologist to the London Hospital, still *in situ*.

Mr. Twort kindly supplies the following notes on the bacteriology of the case:—

Blood cultures were taken on Dec. 4th, 10 cubic centimetres of blood being withdrawn from the median basilic vein in a sterile syringe and distributed into ordinary, glycerine, and glucose broth, and into milk; placed at 37° C. all cultures grew in 48 hours minute bacilli which were easily decolourised by Gram's method and were non-motile. Sub-cultures on to agar grew in the presence of human blood but failed to grow on gelatin at 20° C. or on any of the ordinary media at 37° C. in the absence of blood. The cultures died out before the bacillus could be induced to grow on the ordinary blood-free media. The morphological characters of the bacillus were typical of influenza and its behaviour on artificial media leaves no doubt that the organism was the true influenza bacillus.

Cases of fatal endocarditis from influenza are still sufficiently rare to warrant the publication of any definitely proved case which this claims to be but I think that it has a further special interest of its own as suggesting the query in the title of this communication—what was the nature of this man's previous illnesses and what were the relations between them and his last fatal illness.

Bacteriology has quite recently introduced us to so-called typhoid carriers—i.e., persons who carry about with them (possibly or probably in their gall-bladders) typhoid bacilli potentially active in that they can infect other people or articles though they do not cause symptoms of typhoid fever in their hosts that harbour them; my suggestion is that it is possible that something of a similar nature may be true of influenza, and I would hint at the possibility of it also being true of all our so-called zymotic diseases.

Taking my case as it stands we may note that eight years ago was about the time when our major epidemic of influenza was dying out and probably the statement is correct that the patient then had the disease; about then, and even now, it is probable that a good deal is called influenza which is not so, but the history given fairly well corresponds to what we know of a severe attack. Three years ago influenza was not so fashionable as a diagnosis, and he is then said to have had typhoid fever, but I would draw attention to the very striking resemblance in the description of the two illnesses, the duration and the prolonged subsequent debility are identical, and surely there is something a little more than a possibility that it was another attack of active influenza. There may be a bacteriological difficulty in admitting that it was so, as I suppose he would have had to transfer his bacilli (for him inactive) to a second host or to multiple hosts and they, or one of them, would have had to re-infect him with a generation which had been strengthened by transmission through other hosts so as now to be active for mischief even with him. Of the rash about a year ago we have no further particulars, but we are well acquainted with a variety of rashes appearing with influenza so that the possibility of this being a third attack is not to be excluded.

Now of the last fatal illness of this patient we have a complete history, and such information as amounts to a mathematical demonstration that it was due to the influenza bacillus, notwithstanding the fact that it was called typhoid fever and did present what are commonly accepted as the principal features of that disease. It began with severe headache and bronchitis and diarrhœa, and with these were associated an enlarged spleen and a rash said to be that of typhoid fever. As no bacteriological test (Widal) was made at that time one cannot wonder at a diagnosis of typhoid fever being arrived at. I must claim the credit of having said when I first saw him in hospital, "This is not typhoid fever, whatever else may be causing the typhoid fever state of illness," a clinical impression that was soon confirmed by scientific tests negative of typhoid fever and positive of influenza.

I cannot help feeling that calmly to assume that the attack three years ago was also influenza is going a little farther than one is perhaps justified in doing, but considering the absence then of any scientific test and the very positive likeness of the last illness to typhoid fever, it seems to me that we are not doing any violence to evidence by such an assumption, and if the assumption happen to be correct the sequence of events in the last eight years seems to be very highly suggestive of the idea of influenza carriers on a par with the typhoid ones and resembling the known cases in which nurses and others in fever hospitals carry in their throats undoubted diphtheria bacilli without suffering from the active symptoms of the disease.

The weak link in the chain of evidence is, of course, the absence of any proof that my patient was a centre whence infection of influenza spread to his neighbours, a link which, considering the very wide distribution of influenza outbreaks, we can hardly expect to be able to supply, but I think the history is very suggestive; and, indeed, when one comes to think of it the idea of "carriers" has an inherent probability to which the present state of bacteriological research seems to lend a good deal of support. Whether the idea, if true, may have practical bearings in the direction of preventing outbreaks of our endemic fevers would seem to depend upon the chance of detecting such carriers and then the chance (probably a small one) of disinfecting them; these are points upon which it is at present impossible to offer any opinion but it is to be hoped that bacteriologists will not lose sight of the question.

Dr. W. Bulloch has kindly given me the following references to previously recorded cases of fatal influenzal endocarditis:—

Schlagenhaufer: Ein Fall von Influenzaendocarditis der Aortenklappen und des offenen Ductus Botalli. Zeitschrift für Heilkunde, 1901, vol. xxii. T. J. Horder: Bacillus Influenzæ as a Cause of Endocarditis, Transactions of the Pathological Society of London, 1906, vol. lvii., p. 58. Presslich: Einiges über Endocarditis bei Influenza, Wiener Medicinische Presse, 1905, No. 2-3.

Harley-street, W.

ROYAL SANITARY INSTITUTE.—The ordinary general meeting of this institute was held at the Parkes Museum on April 15th, Mr. H. D. Searles Wood being in the chair. The annual report of the council for the year, showing the satisfactory general progress which the institute has made in carrying out the objects for which it was founded, was adopted, and Dr. Bushell Anningson of Cambridge; Dr. J. Spottiswoode Cameron, medical officer of health of Leeds; Mr. C. H. Cooper, borough surveyor of Wimbledon; and Mr. E. G. Mawbey, borough engineer of Leicester, were added to the council for the ensuing year. The meeting passed a vote of thanks to his Grace the Duke of Northumberland, K.G., for acting as President of the institute.

THE ACCURACY OF OPSONIC ESTIMATIONS.

BY L. NOON, B.C. CANTAB., F.R.C.S. ENG.,
JOHN LUCAS WALKER STUDENT IN THE UNIVERSITY OF CAMBRIDGE;
AND
ALEXANDER FLEMING, L.R.C.P. LOND., M.R.C.S. ENG.,
ASSISTANT IN THE INOCULATION DEPARTMENT AT ST. MARY'S HOSPITAL.

(From the Inoculation Department, St. Mary's Hospital.)

Dr. A. Reyn and Dr. R. Kjer-Petersen, in THE LANCET of March 28th, publish figures on which they question whether the tuberculo-opsonic index of tuberculous patients really does present any specific variation from the normal. This is a blow aimed at the very base of all opsonic work, and we feel that an answer to the attack is not out of place.

Some sources of error to which the technique is liable are discussed by one of us in a paper which is due to appear in the *Practitioner* for May of this year; so that we can here confine ourselves to the criticism of Dr. Kjer-Petersen's figures, against which we produce some figures obtained at St. Mary's Hospital in the routine work of the Inoculation Department.

Our argument is arranged under four heads, which deal respectively with (1) Dr. Kjer-Petersen's position; (2) our reasons for regarding the variations of normal sera as small; (3) our reasons for regarding the variations of tuberculous sera as large; and (4) some general criticisms of Dr. Kjer-Petersen's methods.

1. *Dr. Kjer-Petersen's position.*—Dr. Kjer-Petersen presents us with the mean error or *standard deviation* of his three series of observations and proceeds to show that each series approximates to the distribution known as the "normal curve of error." This implies three propositions. (*a*) The calculated *standard deviation* of each series is a measure of the variation of the observations. (*b*) Nearly 70 per cent. of observations will fall within this limit, and deviations larger than four times the *standard deviation* are only to be expected six times in 100,000 trials.[1] (*c*) When we are presented with the *standard deviation* of a series of observations, we are face to face with a number which represents deviations due to many causes. If, by any means, we can find out the *standard deviation* due to one of these causes acting alone, we can eliminate this (by squaring both numbers, subtracting, and taking the square root of the remainder), and so obtain the *standard deviation* due to the remaining causes.

From what precedes we see that Dr. Kjer-Petersen's figures are open to analysis, if we can obtain the necessary data from which to work. Before we undertake such a task we wish to draw a distinction between certain terms which we shall use. When we speak of the *standard deviation* presented by a series of observations, it is to be understood that the individual observed deviations may be due to *errors* introduced by imperfect technique, or, on the other hand, to actual *variations* in the biological quantity measured. Therefore we speak of a *standard deviation* as compounded of a *mean error* of observation and a *mean variation* of the quantity measured.

Having made these definitions we may now approach Dr. Kjer-Petersen's figures and make use of the statistical method in which he trusts. We shall see what conclusions may be drawn from these figures.

Dr. Kjer-Petersen finds a *standard deviation* (from unity) in his observations on normal sera of 0·19, as opposed to 0·25 and 0·29 in two series of tuberculous cases. *The standard deviation* 0·19, for normals, represents *variations* in the normal sera used and *errors* in the technique of opsonic estimation. One or other of these factors must be considerable. If the variations of normal sera have been more important than the errors of technique, then the difference between 0·19 and 0·25, or 0·29 (the difference, that is, between normal and tuberculous serum), is not of great value, and Dr. Kjer-Petersen's criticism is justified. If, on the other hand, the *errors* have been more important than the *variations*, then no definite conclusions can be drawn from his figures.

We propose to show that the variations of normal sera are small in comparison with the figures given above. Consequently Dr. Kjer-Petersen's work lacks accuracy. Hence we may set aside his conclusions in favour of others which are supported by better figures.

2. *The variations of normal sera are small.*—The records of routine work in the Inoculation Department of St. Mary's Hospital have supplied us with 763 pairs of observations on normal sera. The samples of serum have been obtained from 60 presumably normal individuals, who from time to time offered themselves for this purpose. The difference between the counts for the two normals we have expressed as a percentage of the mean of the two counts. Bearing in mind Mr. M. Greenwood's letter, in THE LANCET of April 11th, we are careful to premise that we have attempted, not a complete mathematical treatment of these data, but an approximation, which is still near enough to justify our rejection of Dr. Kjer-Petersen's results. Our figures are distributed very nearly acccording to the normal curve of error and give a standard deviation of 10 per cent. Table I. gives the observed distribution, compared with the theoretical, which is enclosed in brackets.

TABLE I.

Within 5	per cent.	328 = 427	per mille	(383).
,, 10	,,	558 = 731	,,	(683).
,, 20	,,	722 = 948	,,	(954).
,, 30	,,	754 = 988	,,	(997)
,, 40	,,	762 = 999	,,	(999·94).

What does this *standard deviation* of 10 per cent. mean? It is not the *standard deviation* of single observations from a hypothetical mean normal; it represents two such deviations, because it measures the difference between two observations, both of which may vary. Then the value 10 per cent. is compounded of two equal *standard deviations* from the mean normal. Observations of the indices of normal sera are consequently subject to a *standard deviation* of $\frac{10}{\sqrt{2}}$, or 7 per cent. Estimations of unity, depending on the mean of two such observations, are subject to a *mean error* of $\frac{7}{\sqrt{2}}$, or 5 per cent.

Now this *standard deviation* of 7 per cent. is compounded of the *mean variation* of the opsonic indices of normal sera, and the *mean error* of observation at St. Mary's Hospital. Either of these unknown quantities must therefore be less than 7 per cent. That such a deviation is relatively small may be seen by correcting Dr. Kjer-Petersen's figures in the light of our own. Suppose for example we assume a *mean variation* for normals of 7 per cent. (the largest our figures admit); this corresponds to 0·07 of unity. Eliminating this factor from Dr. Kjer-Petersen's *standard deviation* of 0·19, we are left with a *mean error*, for Dr. Kjer-Petersen's observations, of between 0·17 and 0·18, which we must attribute wholly to imperfections in his technique.

Having said this, we must examine the method by which our figures have been obtained. Most observers either knew, or were liable to know, when they were counting their "normals." This introduces the question of bias. Then, 100 cells were counted in most cases, but a second lot of 100 has been counted, at the observer's discretion, if the normals were found to disagree widely, or if the phagocytosis in any film appeared to be irregular. This introduces the question of reduction of error by taking larger samples. That neither this practice of revision, nor personal bias, has tended to reduce divergencies to any serious degree is the opinion of most practised observers. This opinion is supported by the following facts. (*a*) The close agreement of the distribution of our figures with the law of error. We lay stress on this, because Dr. Kjer-Petersen himself insists that "the influence of any predominant cause" will prevent a correspondence to the law of error. (*b*) During the last two months one of our fellow-workers, to avoid entirely the question of bias, has had his slides re-numbered and mixed up, being thus quite in the dark as to which of his slides were controls. During this time he has made 22 pairs of observations on normal sera, counting only 100 cells of each slide. The *standard*

[1] It must be remarked, however, that the frailty of human nature may introduce into any collection of measurements occasional large errors which are neglected by the "law of error" in its simplest form. If such errors are rare, statisticians generally reject them from their calculations and content themselves with recording their occurrence. For this purpose they use Chauvenet's criterion, which they apply in order to define a *limiting deviation*. An observation which falls outside this limit is not included in the determination of the constants of a curve.

deviation for this series is 6·6 per cent., as opposed to 7 per cent. for the whole mass of our statistics. Further, it has occurred again and again that a result has been doubted by the observer on the score of bias, and has only been reaffirmed by a renewed count where this supposed source of error has been excluded.

3. *The variations of tuberculous sera are large.*—We have given our reasons for believing that normal serum varies much less than Dr. Kjer-Petersen's figures might indicate. We now proceed to the consideration of the sera of tuberculous patients. We have been able to collect 931 observations on 319 patients who had not been inoculated. The *standard deviation* from the normal mean is 0·252, a value greatly exceeding that found for normal sera (0·07). The observations are distributed as follows, and agree very nearly with the "normal curve of error."

TABLE II.

Within 0·126 of the normal mean			374 =	402	per mille.
,,	0·252	,,	,, 670 =	720	,,
,,	0·504	,,	,, 885 =	951	,,
,,	0·756	,,	,, 922 =	990	,,
,,	1·000	,,	,, 931 =	1000	,,

The opsonic indices of tuberculous patients vary, therefore, three or four times as widely as the indices of normal sera. Thus much we can conclude at present; but with increased accuracy of technique it may in the future be shown that the variations of normal sera are much less than we have here assumed, while the correction introduced by such improvements would have little effect on the larger value we have found for the variations of tuberculous sera.

Let us see to what corrections this figure is liable. In a minority of these determinations only 50 cells were counted, but this can only have altered the results very little. The mean counting error cannot be greater than the *standard deviation* of our observations of normal sera. This was 0·07, 100 cells being counted. For counts of 50 cells the mean error will consequently not exceed 0·10. Applying this maximum correction to the whole number of observations, and also allowing for the mean error of the estimation of unity, the *mean variation* of pathological sera is only reduced from 0·252 to 0·226. Such an alteration is trivial and without effect on the validity of our argument.

4. *Some general considerations.*—If statistical methods are to be applied we have shown that numbers are not wanting to support the truth of our conclusions. Further, Dr. Kjer-Petersen's experimental methods are open, even at this distance, to serious criticism. First, we suspect that a certain number of infected individuals may have been included among his 48 normals. In this laboratory, among those who have from time to time offered their blood as a standard in opsonic estimations, tubercle has been diagnosed seven times. The diagnosis rested in the first instance on variations of the tuberculo-opsonic index. In four of these cases clinically recognisable tuberculosis subsequently declared itself.

Dr. Kjer-Petersen also delegates the counting of his slides to a second observer, and in so doing throws away a valuable check on the previous stages of the technique; a high level of perfection in making and staining films is only to be maintained by that constant self-criticism which is incidental to the actual counting of films one has oneself prepared.

CHRONIC POLYCYTHÆMIA.

BY EDMUND CAUTLEY, M.D. CANTAB., F.R.C.P. LOND.,
PHYSICIAN TO THE METROPOLITAN HOSPITAL AND THE BELGRAVE HOSPITAL FOR CHILDREN.

THE following case of polycythæmia is worthy of record although the details do not add anything definite to our knowledge of the condition. The patient was under observation for a long time and a post-mortem examination was obtained. Vaquez first described a case in 1892 and ascribed it to congenital heart disease, until a necropsy in 1895 enabled him to exclude such a cause. Dr. J. W. Russell[1] claims that he described the first case[2] in England under the title of "An Unexplained Condition of Chronic Cyanosis." The patient was under the care of Dr. Robert Saundby, who gives a further description of in a paper on the subject.[3] Dr. Saundby gives a full bibliography of recorded cases and mentions that Dr. F. Parkes Weber first named the affection "chronic splenomegalic polycythæmia." Since then a case in a man, aged 67 years, has been recorded by Pethybridge,[4] and in a woman, aged 68 years, by McQuitty.[5]

The patient, a man, aged 47 years, was admitted into the Metropolitan Hospital under my care on Sept. 30th and was discharged on Oct. 25th, 1905. According to his past history he had an attack of hæmoptysis in 1887, influenza in 1893, and pneumonia in 1901. He was an abstainer and denied lues venerea. For two months he had suffered from pain in the left side, difficulty in breathing, and constipation. He had had no cough. On examination he was found to be a healthy-looking man, with fresh complexion. His teeth were few and bad. The respirations were 34 and the pulse was 88 per minute. He had a subnormal temperature. The reflexes were normal. The heart dulness was diminished, the apex beat was normally placed, and the impulse was feeble. The liver dulness began at the lower border of the sixth rib. The left side of the chest was dull, below the level of the seventh rib in the nipple line and the eighth rib in the mid-axillary line, and the air entry was diminished. A tender lump was felt in the splenic region. It was shaped like the spleen and extended to within an inch of the middle line of the abdomen. It was continuous in dulness with the normal splenic dulness but was resonant over the lower part. There was much tenderness on palpation and the muscles were rather rigid. A diagnosis of perisplenitis and pleurisy with slight effusion was made. A blood examination made on Oct. 19th showed: red cells, 7,500,000; and white cells, 50,000. A week later the red cells were about the same in number and the white ones were 45,000. A differential count showed that the white cells were nearly all polymorphonuclears. The course of the illness was as follows. The spleen became much smaller and the tenderness disappeared. The pleural effusion cleared up slowly. The temperature was usually from a half to one degree below normal, the pulse-rate was from 72 to 88, the respirations were 24, and the urine was normal. The loss of weight was half a pound. On Nov. 15th the spleen was still palpable and the white cells numbered 39,000. He had been at work for about three weeks and came to the hospital on account of pain in the right side and slight hæmoptysis.

In 1906 the man was again an in-patient from April 8th to July 14th, being admitted for pains on and off in the legs, thighs, and shoulders. The floridness of the face was more noticeable and on questioning he stated that he had had it for about two years. The colour varied from deep redness to a cyanotic tint. The ocular conjunctiva was injected and the palpebral intensely red. The tongue was clean, dry, and very red, and he complained of thirst. The cardiac dulness was diminished, the apex beat was not felt, and the sounds were clear. The spleen could be felt just beneath the costal margin and was slightly tender. Posteriorly its area of dulness was increased. The liver was rather enlarged and tender. The pulse-rate was 80, the arteries were thickened, and the arterial tension was high. The blood showed red cells, 9,800,000; hæmoglobin, 110 per cent.; white cells, 82,000, chiefly polymorphs. The fingers were a little clubbed. His symptoms were limited to weakness, variable pains and shortness of breath, and coldness of the hands and feet. On April 19th there was no pain in the limbs. Some hepatic pain and tenderness were present. On the 23rd the blood showed: red cells, 10,000,000; hæmoglobin, 130; and white cells, 59,000; the specific gravity was from 1068 to 1070. The blood pressure was from 180 to 200 millimetres of mercury. The capillary reflex was 10. On May 6th clubbing of the fingers was more marked. The patient had complained of tenderness over the liver and spleen, occipital and frontal headache, and tender gums with slight oozing of blood. He was more cyanosed. The blood pressure was 160 millimetres of mercury. There was much albumin in the urine. On the next day he had pain in the right vastus internus. The knee-jerks were unobtainable and the plantar reflex was flexor in character. On May 10th the tongue was moist and had a whitish fur on it. The spleen was not palpable. The urine was acid, of specific gravity 1015, and contained much albumin. On the 17th the amount of albumin was reduced to a cloud and the specific gravity was 1013. The blood showed: red cells, 8,600,000; hæmoglobin, 150; and some normoblasts. On the 24th an attack of orchitis on the left side began and took nearly

[1] THE LANCET, Dec. 8th, 1906, p. 1623.
[2] THE LANCET, Feb. 22nd, 1902, p. 515.
[3] Brit. Med. Jour., 1907, vol. i., 1165.
[4] Brit. Med. Jour., 1907, vol. ii., p. 20.
[5] Brit. Med. Jour., 1907, vol. ii., p. 84.

three weeks to subside, though not severe. On June 1st venesection was performed, 24 ounces of blood being drawn off. Examination of the blood gave the following result: specific gravity, 1081; red cells, 9,140,000; hæmoglobin, 160; white cells, 91,000, consisting of polymorphs 93·2, eosinophiles 1·2, large lymphocytes 2·6, small lymphocytes 2·4, and myelocytes 0·8 per cent. There were two nucleated red cells to each 500 whites. The red cells varied a little in size and shape. The blood clotted in from six to ten minutes and the viscosity coefficient was 51·2. The volume of corpuscles was 90 per cent. As a result of the bleeding the patient felt very much better and the blood examination showed next day: red cells, 8,050,000; hæmoglobin, 125; white cells, 50,000; and polymorphs, 94 per cent.

The number of red cells and the amount of hæmoglobin kept about the same during the next five weeks. The white cells ranged from 50,000 to 72,500. The patient was then bled again to the extent of 34 ounces. Examination of the blood showed that the specific gravity was down to 1073·5 and the volume of corpuscles to 85 per cent. A week later the number of red cells was reduced to 7,650,000 and white cells to 68,000. 1480 cubic centimetres of urine were passed in the 24 hours; it was of specific gravity 1012, acid, and contained one-half albumin (Esbach), granular and hyaline casts; P_2O_5 0·07 per cent., equivalent to 1·035 grammes; and chlorides 0·45 per cent., or 6·6 grammes. The patient felt much better and was discharged. During his stay in hospital the temperature was generally subnormal, ranging between 97° and 98° F., occasionally reaching 99°. The pulse-rate varied between 76 and 108, the most constant rate being between 80 and 90. The daily output of urine averaged 57 ounces, with a minimum of 21 and a maximum of 106 ounces; its specific gravity was 1008–1015. A trace of albumin was still present when he left the hospital. He gained about a pound in weight. Observations were made subsequently on the blood and urine but showed no special changes from the condition on discharge, except for an increase in the albuminuria. Death resulted from cerebral hæmorrhage on Feb. 4th, 1907.

Necropsy.—Post mortem the body was very cyanosed. The heart's blood was sterile. There was large hæmorrhage into the left cerebral hemisphere. The veins in the neck and chest were much distended with very dark bluish-black fluid blood (two days after death). The lungs were engorged. There were pleural adhesions at the left base and over the right upper lobe. The heart was 16 ounces in weight; the right side was distended with blood and clots; the walls were rather friable. There was slight atheroma of the aorta, aortic and mitral valves, and coronary arteries. As regards the abdomen, there were firm adhesions around the spleen, between it and surrounding organs. The liver weighed 72 ounces and was of a natural colour and structure. The spleen weighed 18 ounces, was firmly adherent to the surrounding structures, and contained one very large and one small, soft, yellow, diffluent, breaking down infarct. The rest of the spleen was divided into rounded lobules of soft splenic tissue, chocolate-brown in colour, separated by fibrous tissue. The suprarenals were normal. The right kidney weighed two ounces and was granular; the left kidney weighed eight ounces and was slightly granular. The left testis was small, fibrous, and puckered. Microscopical examination of the various organs and the bone marrow afforded no indication of the etiology of the condition. Most of the post-mortem appearances could be explained as the result of local thrombosis of the extremely viscid blood.

Remarks.—Although any condition of cyanosis induces polycythæmia it does not follow that the increase in the number of red cells is due to the cyanosis in cases of the above type. More probably there is an actual increase in the production of red cells and the cyanosis is consequent on the increasing viscosity of blood and difficulty in its efficient aeration. The considerable increase in the number of white cells, especially in the polymorphs, suggests that we have to deal with an inflammatory affection of the blood-forming organs, possibly the result of some toxin. In many instances the number of white cells is little increased. So far microscopical examination of the various organs has yielded no positive information. Venesection in this patient certainly relieved the symptoms considerably. The omission of milk from the diet and large doses of sodium citrate did not appear to produce any beneficial effect.

I am indebted to Dr. H. Beckett-Overy and to Mr. Ernest Shaw for the careful pathological observations above recorded.

Upper Brook-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF APPENDICULAR ABSCESS CONTAINING A PIN.

BY J. MARCUS HAYES, L.R.C.P. & S. IREL.,
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IN connexion with the subject of appendicitis the following case may be of some interest.

The patient, a female, aged 28 years, unmarried, was admitted to Stroud Hospital on Sept. 11th last with the following history. She had "always been delicate," and about ten years ago she first complained of great weakness across the lumbar region. She started work as a tailoress about five years afterwards but the pain in her back becoming much worse she had to give up her employment three years ago. At this time (i.e., three years ago) she first complained of pain in the right side, localised in the right iliac region and occasionally shooting down the outside of the right thigh. The bowels were not regular and she had two or three attacks of severe abdominal pain. About this time she also suffered a good deal from sickness of the stomach which occasionally brought on vomiting but she did not connect this sickness and vomiting with the pain. She said they occurred at different times; the sickness and vomiting came on, as a rule, after breakfast. She was not able to give any more definite information except that for the past three years she had had a persistent slight pain or feeling of uneasiness in the right side, the pain being sometimes very severe and of a "screwing and burning" character, but was much relieved when she lay flat on her back. She had been seen from time to time by different medical men and a good deal of her trouble was attributed to neurosis. She had been in bed for two weeks with one of these attacks of pain just before her admission to hospital, and on admission she looked sallow and distinctly ill. The temperature was 97° F., the pulse was 80, and the tongue was fairly clean. She localised the site of pain about one and a half inches inside the right anterior superior spine. There was no swelling or area of dulness but a good deal of tenderness on pressure. The bowels acted that evening without an aperient. During the next two days the temperature was subnormal and the pulse was about 80; she did not complain of pain but said she felt weak and giddy, and there was still much tenderness on pressure.

On Sept. 14th, under an anæsthetic, a hard, well-defined mass was felt in the appendix region. The usual incision for appendicectomy was made and was continued to a length of about three inches. There was considerable thickening of the peritoneum, and this having been divided the cæcum immediately presented. It appeared to be normal and was not bound down in any way by adhesions. On following down its anterior longitudinal muscular band the root of the appendix was found; it looked congested and dilated to about the size of an average terminal thumb phalanx. In endeavouring to isolate the appendix it was found that what should have been the body and tip of the organ was in reality a hard mass of about the size of a golf ball, imbedded in the substance of the iliacus muscle, but continuous with the base of the appendix. The cæcum and other coils of intestine having been carefully packed off, an attempt was made to isolate the mass, but in so doing it burst and about one and a half drachms of most offensive pus and some inspissated material (which contained evident remains of the wall of the appendix) were discharged. This was removed and then the tip of the finger could be worked around a pretty large cavity containing a quantity of this inspissated débris, which was removed piecemeal. On examining one of the small concretions so removed it was found to be formed around the head of an ordinary pin one and a half inches long. The cavity was cleared out as well as possible and a counter-opening was made through the loin. Through the latter, and also through the wound in front, there was a copious discharge of most offensive pus for three weeks. As the evening temperature was remaining up, being regularly 100° or 101°, the wound in the loin was explored on Oct. 8th, and as the pus was burrowing upwards

under the iliac fascia another opening was made through which further drainage was established. After this the temperature never rose above 99°, the wounds healed, and recovery was uneventful, except that for six weeks after operation the bowels were obstinately constipated, acting only after simple enema. However, during her last three weeks in hospital they acted regularly under the influence of a laxative iron mixture and the patient was discharged on Nov. 18th feeling quite well.

I think the case is rather interesting, first on account of the long history with these recurring attacks of appendicular colic; then the passage of a 1½-inch pin from the mouth to the appendix without giving rise to more serious symptoms than were present here, though undoubtedly possible, must surely be an uncommon occurrence. Again, at the junction of the appendix with the cæcum is a valve, and a much debated point is how far fæcal matter can penetrate into the appendix and how far it does so under normal conditions. This pin is an instance of a foreign body (most probably with some fæcal material) entering from the intestine which, according to our best authorities, is comparatively rare.

For permission to publish the above note I must thank Mr. A. B. Davies, under whose care the case was at Stroud Hospital.

NOTE OF A CASE IN WHICH A GALL-STONE FORMED ROUND A CATGUT SUTURE.

BY HAMILTON DRUMMOND, M.B., B.S. DURH.,
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THE patient the subject of this note was first admitted to the Newcastle Infirmary in December, 1901. She was a stout woman, aged 48 years, with a history of severe attacks of pain in the right hypochondriac region of 29 years' duration. A diagnosis of gall-stones was made and on Dec. 7th, 1901, she was operated upon by Mr. Martin.

The gall-bladder was found to be enlarged and adherent about the neck. It was opened and found to contain bile and six stones (three-eighths of an inch by three-eighths of an inch) with facets were removed from the cystic duct. The common duct was then explored after separating adhesions and several stones were removed by incision. No other stones were discovered. The common duct was drained with rubber tube and no sutures were inserted. The gall-bladder was closed with through-and-through ordinary catgut and a layer of silk Lembert sutures. The hepatic pouch was drained from the posterior end of the incision and the rest of the incision closed with layers of catgut. The patient made a good recovery and was discharged with the incision perfectly healed on Jan. 7th, 1902.

On Sept. 25th, 1907, she was readmitted with a history of good health up to four days before admission when she complained of slight pain over the old scar on going to bed. The pain persisted next day but was not severe and allowed her to perform her household duties as usual. On the following day it suddenly became very acute and she felt sick but did not vomit. In this condition she was admitted into the Royal Victoria Infirmary some seven hours after the onset of the acute attack. On examination a distinct tender swelling was found in the region of the gall-bladder. A diagnosis of acute distension of the gall-bladder from impaction of calculus was made and an operation was decided upon. Mr. J. Clay made a longitudinal incision through the right rectus muscle over the swelling and the distended gall-bladder imbedded in dense adhesions was exposed. The adhesions were separated and the gall-bladder aspirated and several ounces of clear mucus were evacuated. After incision a large rounded stone was found wedged in the neck of the gall-bladder, which was very much hypertrophied, though the cystic duct opening was patent. The patient did well and went home quite healed on Oct. 11th, 1907. There was nothing unusual about the appearance of the stone, which was round and measured one and a quarter inches by three-quarters of an inch and weighed 80 grains. On attempting to section it the stone broke in layers, showing different strata, and in the centre, forming a nucleus, was a bit of catgut tied in double knot and loop, which was well preserved. The calculus was composed of cholesterin and bilirubin calcium.

There are other cases on record in which gall-stones have formed round sutures: for example, Mr. Sinclair White[1] exhibited a specimen at the Exeter meeting of the British Medical Association in which a gall-stone had formed round a catgut suture 18 months after operation. Dr. J. Homans[2] reports a similar case where three gall-stones had collected round a piece of silk 20 months after cholecystotomy; and Mr. J. Bland-Sutton[3] in his book on gall-stones quotes an interesting experiment on a dog, where, after five months, two calculi formed round a thread which was suspended and allowed to float freely in the gall-bladder.

I have to acknowledge my indebtedness to Mr. Martin and Mr. Clay for permission to publish the above note.

Newcastle-on-Tyne.

[1] THE LANCET, August 17th, 1907, p. 443.

NOTE ON A CASE OF DISSECTING ANEURYSM OF THE THORACIC AORTA ULCERATING INTO THE PERICARDIUM.

BY THOMAS OLIVER, M.D. GLASG., F.R.C.P. LOND.,
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THE patient, a man, aged 52 years, was admitted into the Royal Victoria Infirmary, Newcastle-on-Tyne, under my care on Dec. 24th, 1907, suffering from pain in the left side of the chest and the left leg. When at work that morning he had been suddenly seized with pain in the left chest which was so severe as to cause him to fall. He also vomited. Shortly after his admission into the infirmary he again vomited. The pain in the chest persisted from the time of his arrival at 8 A.M. until midday. On physical examination nothing was detected in the lungs. No murmurs were heard over the cardiac area. There was just the slightest displacement outwards of the apex beat. Towards the afternoon the patient seemed to rally considerably and to lose much of his pain. He was able to see his wife and to converse with her. At 5 P.M. he became suddenly ill; his breathing became laboured and difficult, and laying back his head on the pillow he suddenly expired.

At the necropsy, which was made by Dr. W. E. Hume, it was noticed on removal of the sternum that the pericardial sac bulged, and on opening it that it contained, in addition to blood-stained serum, 10½ ounces of blood-clot. The surface of the right auricle of the heart was granular and chocolate-looking. The heart itself was found to be healthy; there was neither hypertrophy nor dilatation of its cavities. A longitudinal tear about three-quarters of an inch in length was found in the aorta, commencing about a quarter of an inch above the aortic cusps, and involving the inner and middle coats of the vessel. These two coats of the aorta were separated from the external sheath throughout the whole of the ascending, transverse and descending portions of the arch, as well as at the openings of the innominate, the left carotid, and the left subclavian arteries. The space thus formed was filled with blood-clot. At the junction of the adventitia and the pericardial sac the surface was blood-stained. Here a leakage had occurred through a small ulcer in the external coat of the aorta. The interior of the aorta was atheromatous in places. The lungs, the liver, and the spleen were normal. One kidney showed a scar the seat of an old gumma with surrounding fibrosis. Below the diaphragm there was no separation of the coats of the aorta.

Newcastle-on-Tyne.

[2] Annals of Surgery, 1897.
[3] Bland-Sutton on Gall-stones and Diseases of the Bile-ducts.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Fatal Lymphocythæmia in Early Life.—Multiple Rheumatic Nodules in an Adult.—Right Hemiplegia with Optic Atrophy.—Exhibition of Cases.

A MEETING of this section was held on April 10th, Sir THOMAS BARLOW, the President, being in the chair.

Dr. J. GRAHAM FORBES and Dr. F. S. LANGMEAD communicated a paper on Fatal Lymphocythæmia in Early Life based on 12 cases. Dr. Forbes said that the ages of the patients ranged from seven months to 11 years, ten being under four years. The disease as exemplified by these cases was of indefinite onset, with a history of increasing

pallor and languor for some weeks, while the duration from onset to death varied from three or four months in the more prolonged to under two weeks in the rapidly fatal cases. The average duration was five weeks. The clinical features were marked by progressive anæmia, associated with a tendency to hæmorrhages in the form of purpura, retinal or conjunctival hæmorrhages, bleeding from the gums, epistaxis, or more rarely hæmaturia or hæmatemesis. The cases also presented, usually but not invariably, slight general enlargement of the lymphatic glands, more obvious enlargement of the spleen and liver, and in a few instances the kidneys were palpable. Diarrhœa and vomiting were not uncommon at the onset and during the course of the disease. The temperature was irregularly raised. The urine in several cases contained traces of albumin. Blood examination showed an increasing diminution in the number of red corpuscles to yield a figure between 1,000,000 and 2,000,000 per cubic millimetre or lower, and the colour index varied between 0·5 and 1·5. The highest leucocyte count obtained was 1,000,000 per cubic millimetre; three other cases yielded counts of 321,000, 196,000, and 126,000 leucocytes per cubic millimetre; and in six cases the number varied from 81,000 to as low a figure as 3500 per cubic millimetre. The frequency with which the leucocytes showed a considerable fall in numbers, preceding death, was pointed out, and was attributed to the probable influence of a terminal septicæmia. Differential counts of the leucocytes yielded in all cases a marked absolute or relative lymphocytosis, the percentage of lymphocytes varying from 66 in the earlier to 99 in the later course of the disease. The large lymphocyte tended to predominate in the acute, and the small lymphocyte in the more prolonged cases, but this feature was subject to variation according to the stage of the disease. On post-mortem examination there was found usually slight enlargement of the superficial and deep lymphatic glands. The pericardium and pleuræ were scattered with punctate hæmorrhages. The spleen and liver were enlarged. The kidneys in the majority of cases were much increased in size and displayed extensive hæmorrhagic and pale mottling. The intestines showed but little change beyond a few hæmorrhages and swelling of Peyer's patches. The bones showed no alteration and the marrow, which varied in colour from pale to dark red, did not appear increased in amount. In four cases short streptococci were obtained in pure culture from the heart's blood, spleen, and other organs, and from the marrow in two cases. The streptococci conformed in subculture and fermentation tests with the behaviour of streptococcus salivarius. The microscopical changes characteristic of the disease were illustrated by means of coloured drawings, demonstrating lymphocytic invasions with occasional hæmorrhages into the connective tissues of the heart muscle, liver, spleen, lymphatic glands, and kidney. The extensive changes, both macroscopic and microscopic, found in the kidneys were emphasised as a common and striking feature. The appearances of the blood and marrow were also shown by drawings of film preparations, displaying large numbers of lymphocytes. In discussing the pathogeny of lymphocythæmia, it was pointed out that the weight of evidence of most recent work was strongly in favour of the marrow being the primary seat of disease, while the changes found in the blood and various organs were probably secondary. Some support had been given to the view that the disease was of microbic origin and that the lymphatic glands were primarily involved as the result of infection. Though the bacteriological investigation of previously recorded cases and of those above described showed the presence of a streptococcal infection, yet there was strong probability of such infection being merely terminal or intercurrent rather than primary. Reference was also made to the suggestion that the disease originated in the thymus, but little evidence could be brought in support.—The PRESIDENT related the details of a case pointing to an infective origin but admitted the possibility of explaining what was taken to be the septic focus as an accompaniment of the disease rather than its starting point.—Dr. F. J. POYNTON described a case similar to that narrated by the President. He favoured the idea that the infective theory of the origin of the disease was the correct one and urged the importance of experimenting on animals to elucidate the point.—Dr. FORBES was not prepared to admit that the cases arose primarily in the marrow and Dr. LANGMEAD said that clinically the cases closely resembled acute septicæmia.

Dr. FRANCIS H. HAWKINS recorded a case of Multiple Rheumatic Nodules in an Adult. The patient, a woman, aged 35 years, had had rheumatic fever at the age of 17 years followed by chorea. A second attack of rheumatic fever occurred three years later and was accompanied by the formation of nodules on the head and spine. Following a more recent attack nodules were observed on the spinous processes of the dorsal vertebræ, both scapulæ, both ulnæ, the skull, and the left index finger. A year later the only nodules which could be detected were on the clavicles.

Dr. LEONARD G. GUTHRIE and Mr. M. STEPHEN MAYOU recorded a case of Right Hemiplegia with Atrophy of the Left Optic Nerve. Dr. Guthrie said that the patient, a boy, aged seven years, was in July, 1906, run over by a cab and sustained fracture of several ribs on the left side. Three days later he developed pneumothorax on the left side. Six days after the accident he became aphasic, hemiplegic on the right side, and blind in the left eye. Speech had now returned and he had partially recovered from the hemiplegia. The left optic disc was completely atrophied, the ophthalmoscopic appearances being those of complete occlusion of the arteria centralis retinæ. Intelligence and physical health were good. No trace of the left common carotid artery nor of its terminal facial and superficial branches could be detected. The simplest explanation was that those vessels and the left middle, central, and ophthalmic arteries became occluded by thrombi formed in the heart and escaping into the circulation at the time when pneumothorax occurred. The boy's healthy mental and physical condition, however, was against such extensive occlusion of vessels. Possibly the left cervical arteries were abnormal and occlusion had only taken place in the arteria centralis retinæ and branches supplying the neighbourhood of the left internal capsule.

Mr. CHARTERS J. SYMONDS showed a case three years and nine months after complete Excision of the Larynx illustrating an improved method of speaking. The patient, aged 52 years, was admitted to Guy's Hospital in July, 1904, with extensive malignant disease of the larynx affecting primarily the left side. The disease had penetrated the left ala and involved the muscles. Complete extirpation was carried out in the usual way, together with removal of the thyrohyoid and sternohyoid muscles on the left side. The fascia with lymphatics and the left thyroid lobe together with all surrounding fascia were also removed. The trachea was attached to the skin above the sternum and the pharynx was closed with three rows of catgut sutures. Primary union was obtained. The patient was shown in order to exhibit his phonetic power, especially with the aid of the device suggested by Gluck, which by inserting a rubber tube into the cannula carries a current of air to the lips. By this means the patient could be heard at some distance and was able to carry on his duties. There was no difficulty in swallowing.

Mr. SYMONDS then showed a patient, aged 55 years, in contrast to the first case. On Oct. 17th, 1906, the left cord was removed for a strictly localised malignant growth. The excellent voice retained represented the average phonetic result when the arytenoid was not interfered with and the opposite cord was not injured in the operation.

Mr. W. SAMPSON HANDLEY showed two cases illustrating the results of Lymphangioplasty for the Brawny Arm of Breast Cancer. This procedure was described in THE LANCET of March 14th, p. 783, and consists of the introduction into the subcutaneous tissue of the swollen arm of a number of buried silk threads running longitudinally up to the axilla.—Mr. CECIL H. LEAF described the successful results which he had obtained by venesection.—Dr. F. PARKES WEBER suggested that Mr. Handley's method might be useful in elephantiasis.—Dr. J. P. ZUM BUSCH narrated how he had secured relief by the use of silver wire.—Mr. HANDLEY agreed that his method by silk threads was applicable to other conditions of lymphatic œdema.

Dr. HAWKINS showed a case of Ascites treated by paracentesis performed 25 times in 15 months. He said that the patient, a man, aged 43 years, began to suffer from swelling of the abdomen and feet, with loss of flesh, in August, 1899. He had never been a heavy drinker and had not suffered from venereal disease. When the patient came under observation in September, 1899, there were œdema of the lower limbs and slight œdema of the chest wall and sacral region. The abdomen contained a large quantity of free fluid. The heart sounds were normal. The urine on some occasions contained blood and albumin. The abdomen was tapped on 25 occasions during a period of 15 months, the maximum amount of fluid withdrawn being 36 pints. Since December, 1900, the patient had had good health and had followed his occupation as a gardener.

Dr. NORMAN MOORE showed a case of Myxœdema with Optic Atrophy. The patient was a man, aged 44 years, who was admitted to St. Bartholomew's Hospital on Feb. 7th last suffering from blindness and lethargy. He was first conscious of defective sight in his left eye in September, 1906, and in his right eye in June, 1907. He was a waiter and realised his defect of sight one day when he swept all the glasses off a table with the crumbs. His sight was a little better in the summer. On admission he was very drowsy and usually did not answer questions until after a long interval but now and then became so talkative that it was difficult to stop his flow of conversation. His eyes were kept half open or shut. The thyroid gland could just be felt. His complexion was pale. The skin was dry and thick all over, looking œdematous but without pitting on pressure. The mucous membrane of the mouth was thickened. The fingers were thick and there was tremor of the hands. The temperature was subnormal or normal. The knee-jerks were exaggerated and ankle clonus was present. Both optic discs showed atrophy, the left much more than the right. The visual field was not markedly contracted, but slightly so on the nasal side. He could perceive light with his left eye and could count objects with his right. After continued administration of thyroid extract his lethargy and abnormal mental state have disappeared, and he can walk well and has no tremor of his hands. He speaks of his left eye as blind, but can use the right better. The discs show no change.

Dr. PARKES WEBER showed a case of Œdema of the Hands and Feet with mediastinal affection. He said that the patient, an unmarried woman, aged 21 years, was admitted into the German Hospital on March 23rd last with great œdematous swelling and cyanosis of the hands and feet. The œdema was symmetrical; in the lower extremities it extended upwards as far as the knees and in the upper extremities to about the middle of the forearms, but the upper limit was not sharply defined in either extremities. The swelling had commenced to appear gradually in the feet about five or six weeks, and in the hands about three weeks, before admission. There was no œdema of the face or loins or elsewhere in the body. The patient said that she had previously enjoyed good health and was not aware of having anything else the matter with her. Examination of the thorax, however, showed dulness with diminished breath sounds and voice sounds over the lower part of the left anterior and axillary regions, up to the second rib in front, and up to the sixth rib in the middle axillary line. The upper part of the dull area was separated by about half an inch from the left border of the sternum. There was some impairment of resonance over the left infrascapular region. Vocal vibrations could be felt over the right front but not over the left front. There were no pulmonary adventitious sounds anywhere. The upper part of the left lung and the whole of the right lung appeared normal. The apex beat of the heart was in the normal situation but the cardiac dulness extended rather too far to the right; there was no evidence of valvular disease. Roentgen ray examination showed an extensive shadow on the left side of the thorax which corresponded to the abnormal area of dulness and was separated by a fairly sharply defined, dome-shaped border from an upper normally clear area. The heart shadow, which was not separated from the abnormal shadow, extended rather too far to the right of the sternum. There was slight anæmia. The superficial lymphatic glands were not enlarged. The thyroid gland was apparently of natural size. There was no paralysis of either vocal cord. The pupils were equal and reacted naturally to light and accommodation. The knee-jerks were very active, of the "trepidation" or "vibratory" type. There was no ankle-clonus and the plantar reflexes were not obtained. The radial pulse, usually about 100 to the minute, was regular and equal on the two sides and of low pressure. The temperature varied between 99° and 101° F. There was no cough or expectoration or history of hæmoptysis. The respirations were 30 to the minute. There had been no pain anywhere except a little when the feet were greatly swollen and the skin was very much stretched. The swelling, and especially the cyanosis, of the extremities had greatly diminished on rest in bed.

Dr. PARKES WEBER also showed a case of Hæmangiectatic Hypertrophy of the Foot, possibly of spinal origin. He said that the patient was aged 19 years and that his left foot was decidedly larger than the right and of a red or bluish-red colour as if turgid with blood. The skin over the part of the foot was closely studded with small venous loops (varices), as in a lesser degree was the skin over the knee-cap. The calf muscles and other muscles of the leg were about equally developed on the two sides, but there was considerable wasting of the left thigh and buttock and the left hip-joint was ankylosed. The pulsation in the dorsalis pedis artery was well felt in both feet. There was no anæsthesia and the reaction of the muscles to galvanism was normal. There was considerable kyphosis in the dorsal region of the spine. There was no evidence of any disease elsewhere in the body. Radiograms showed that the hypertrophy of the left foot was practically confined to the soft parts and that there was bony ankylosis of the left hip-joint (of doubtful origin). The history was that about two years ago the patient complained of pain in the back of the left thigh. He was at first treated for sciatica and was afterwards supposed to have hip disease and wore a Thomas's splint for 18 months. The hæmangiectatic hypertrophy of the left foot and the wasting of the thigh muscles had developed during the last two years, but the kyphosis of the dorsal region existed to some extent previously, though it seemed to have increased during the last two years.

Dr. DAVID WALSH showed a case of Spurious Acromegaly in a patient suffering from exophthalmic goitre associated with a congenitally high forehead. The patient was aged 35 years and for five years had been under treatment for recurrent patches of alopecia areata of the scalp. After a severe mental shock at Christmas, 1907, the patient developed symptoms of exophthalmic goitre. The face was suggestive of acromegaly but the appearances were similar in a photograph taken 18 years ago. The patient had a congenitally high forehead, a condition present in every one of a consecutive series of 35 cases of exophthalmic goitre. This congenital sign might be described as a band of baldness or semi-baldness of variable character stretching across the frontal region of the scalp, with a further triangular area or bay projecting backwards at each end. Sometimes the band was outlined by a thin pencil of hair showing where the hair should have reached in normal conditions of growth. It was suggested that this congenitally high forehead was connected with a peculiar temperament—"potential exophthalmic goitre," and in several cases exophthalmic goitre had actually developed under observation. As regards the resemblance to acromegaly the features might perhaps be of a reversionary type.

Mr. HERBERT TILLEY showed a case illustrating the result of operative treatment for Chronic Bilateral Empyema of the Frontal, Ethmoidal, and Sphenoidal Sinuses. The patient, aged 35 years, had suffered for two years from a profuse, purulent, offensive discharge from both nostrils, associated with a feeling of "tension" in the lower central region of the forehead. It was ascertained upon examination that pus was being discharged from all the sinuses and radical operations had been performed upon the antra only in May, 1907, by another surgeon. The discharge continued freely from the higher sinuses, and when it was found that free irrigation failed to check the flow radical operations upon the fronto-ethmoidal and sphenoidal sinuses were carried out. On Feb. 12th Killian's radical operation was performed on the right side and the sphenoidal sinus was also opened. On March 4th an incomplete Killian's operation was carried out on the left side. The size and disposition of the sinuses before the operation were shown by a skiagram. The case illustrated the superiority of Killian's complete operation to any other in extensive suppurative disease of the upper sinuses. There was an almost entire absence of deformity over the right sinus but there was slight deformity over the left, where an incomplete, but otherwise successful, operation had been performed.

Mr. T. H. OPENSHAW exhibited an appliance for obtaining Extension of the Spine in the Treatment of Scoliosis and Caries. This consisted of a bed made of plaster-of-Paris, which was accurately moulded to the whole dorsal surface of the patient, from the head to the heels. It fitted with the utmost accuracy, with the result that the patient could lie on the back during the whole night or for 24 hours without the slightest discomfort. It was specially fitted with an arrangement of pulleys, weights, and a Glisson's sling in order to extend the spine. Counter-extension was obtained by means of a leather pelvic girdle which was attached by straps to the iron framework of the plaster bed. This pelvic girdle was accurately moulded to the iliac crests and pelvis, thus obviating pressure sores. There was also attached to the middle line of the plaster bed at a point corresponding with the centre

or most prominent part of the dorsal convexity or hump a broad band of webbing which passed laterally across the convexity and was attached to a horizontal iron bar fixed in the plaster bed. The convex ribs rested upon this band of webbing and were consequently continuously subjected to considerable pressure in an anterior direction. The influence of such pressure upon the dorsal convexity was enhanced by the recumbency of the patient and by the simultaneous extension of the vertebral column.

MEDICAL SOCIETY OF LONDON.

Exhibition of Cases.

A MEETING of this society was held on April 13th, Dr. J. KINGSTON FOWLER, the President, being in the chair.

Dr. STCLAIR THOMSON showed two radiographs to illustrate the value of the x rays in showing and washing out the frontal sinus. He said that when unprovided with the x rays it was usual to depend upon the direction taken by the cannula to decide whether the frontal sinus had been entered or not. One of the radiograms showed that the point of the cannula passed up towards the frontal sinus and that the portion of it outside the anterior nares was flat against the upper lip. Those two points might make them think that the frontal sinus had been certainly entered, particularly when pus could be washed out. But on the x ray screen it could be seen that the cannula had not entered the fronto-nasal duct but had passed up into an anterior ethmoidal cell and that its point was pressed against the floor of the anterior fossa of the skull. It would readily be recognised that any roughness in manipulation in that area might have serious results. He showed another skiagram of the same case, with the same cannula, where the instrument was with the help of the x rays securely guided up into the centre of the frontal sinus. He also exhibited a radiogram showing complete absence of the left frontal sinus; it could be seen that the right frontal sinus was of exceptionally large size and crossed the middle line so as to occupy not only the right side but also the left side of the forehead. The condition, as revealed by the radiograph, was confirmed by operation. The case illustrated the great value of the x rays in showing the position and extent of the frontal sinus.

Dr. C. W. CHAPMAN showed a case of Bradycardia with Valvular Incompetence in a man 38 years of age. The patient was first seen by him in June, 1903. He had been passed as a first-class life at an insurance office in 1901. The first symptom noticed was in May, 1903, when he had an attack of giddiness followed by shortness of breath and a feeling of tightness in the chest. Later he had a second attack of giddiness, with dimness of vision. In September, 1903, the pulse-beat varied from 34 to 40, no abnormal sounds could be detected in the aortic region, a mitral systolic murmur was present though only heard during the stronger contractions, and all the cardiac beats could be felt at the wrist. In February, 1907, he was taken with a sense of severe constriction of the chest, followed by faintness and loss of consciousness. There had been attacks of transient dimness of vision and giddiness during the last year, otherwise he had been very well.—The PRESIDENT observed that bradycardia was not a condition inconsistent with prolonged life.—Dr. F. PARKES WEBER raised the question whether the affection developing in adult life was against the patient reaching an advanced age, and Dr. CHAPMAN pointed out that in the case which he brought forward the condition might be congenital with delay in the appearance of the symptoms.

Dr. F. S. PALMER showed a case of Progressive Muscular Atrophy in a boy, aged 15 years. The condition was most marked in the left upper limb, there being extreme wasting of the hand muscles and almost complete wasting of all the muscles of the limb. The hand was in the position of "main en griffe." Dr. PALMER, in reply to an inquiry from the PRESIDENT, said that an unusual point in the case was that fibrillary twitchings had commenced in the muscles of the shoulder girdle and not in those of the hand.

Dr. PALMER also showed a case of Articulatory Defect following attacks of Transient Hemiplegia.

Dr. PARKES WEBER showed a case of Primary (?) Splenomegaly with Anæmia. The patient was a Jewish married woman, aged 50 years, said to have come from a non-malarious part of Russia. The spleen was hard and greatly enlarged, reaching downwards into the iliac fossa, and reaching to the right across the middle line slightly to the right of the umbilicus. It was not tender to pressure. In January, 1908, a differential count by Dr. A. E. Boycott of the white cells in the patient's blood showed that in 500 cells the lymphocytes were 20·8 per cent., the intermediates 7·6 per cent., the large hyalines 4·4 per cent., the neutrophile polymorphonuclears 66·8 per cent, the eosinophiles 0·4 per cent., and the mast cells 0·0. Whilst counting the 500 white cells he saw 24 ordinary normoblasts, 16 erythroblasts which resembled megaloblasts except in their relatively small size, and three typical megaloblasts. He saw many polychromatophilic red cells, a few punctate basophilic red cells, and three megalocytes. The platelets were apparently increased in amount. Removal of the spleen would probably be advisable were it not for the obvious danger to life of such an operation in the present patient. It was possible that later the condition would develop into that of so-called "Banti's disease," with leucopenia and hepatic cirrhosis.

Dr. PARKES WEBER also showed a patient with an Enlarged Spleen and described the case as one of pernicious anæmia.

Dr. W. H. WILLCOX showed a case of Cirrhosis of the Spleen and Liver (? Banti's disease).

The PRESIDENT, in discussing the three cases of enlarged spleen, considered that in Dr. Parkes Weber's second case there must be some other condition present than pernicious anæmia, and Dr. F. J. POYNTON asked how many cases of pernicious anæmia with an enlarged spleen Dr. Parkes Weber had seen.—Dr. PARKES WEBER said that he had heard that enlargement of the spleen and of the liver occurred in pernicious anæmia but not always.

Mr. E. M. CORNER showed a case of Old Fracture of the Head of the Astragalus and the Scaphoid of the Foot in a man who had fallen 16 feet on to his foot as the result of an accident in July, 1907. He was "faint" and carried home, not standing on the foot. He remained in bed three days, after which he went about on crutches for three weeks. It was supposed that his left ankle was "sprained." Coming under the Employers' Liability Act there was great dissatisfaction because he recovered so slowly and could not work. The treatment consisted of massage, exercises, and the use of a pad in his boot under the arch of his foot. Under it he improved slowly, the foot not swelling so much, the man sleeping better and getting about better. In March, 1908, the insurance company referred him to Mr. Corner for an opinion as to why he did not get well. On examination, a bony swelling was found between the tubercle of the scaphoid and the internal cuneiform, such as was not present on the uninjured foot. This suggested a possibility of a fracture of the astragalus. Skiagrams were taken of both feet, which showed that "in the left foot there has been a piece broken off the inner side of the head of the astragalus and also a fissure fracture through the scaphoid, directed upwards and forwards, involving both articular surfaces, and showing little or no displacement." The broken-off part of the astragalus was seen by the lower part of the head, the fissure in the scaphoid beginning opposite it and being directed upwards. This case was an example of what might be called the "obscure fractures," undiscovered until the x rays demonstrated them.

Mr. CORNER also showed a case of Overgrowth of the Great Toe with Dislocation of the Metatarsophalangeal Joint. The condition was in part congenital and in part acquired, the congenital factor being the overgrowth of the soft parts and bones, the acquired factor being the abducted position of the toe due to wearing boots. As the man was perfectly satisfied there was no need to treat the condition.

Dr. O. K. WILLIAMSON showed a case of Aortic and Mitral Stenosis in a boy, eight years old. The heart's apex beat was found to be in the fifth left intercostal space half an inch outside the nipple line. At the apex both sounds were audible, the first being short. At and within the apex was heard a crescendo presystolic murmur. At the second right interspace both sounds were audible, also a harsh systolic murmur having its maximum intensity at this spot and being conducted up to the clavicle. There was no diastolic murmur. At the second left interspace the systolic murmur was audible and the second sound was markedly accentuated. The pulse was small, rapid, and regular; the vessel was full between the beats. Slight choreiform movements were present.

Dr. H. E. SYMES-THOMPSON showed a case of Bigeminal Heart in a single woman, aged 20 years. The apex beat of the heart was in the sixth space in the nipple

line and the dulness showed that the organ was enlarged on the right side also. On palpation the heart beats were found to take place in pairs, a forcible beat being followed prematurely by another beat of less intensity. Each pair of beats was followed by a pause. As a rule, the feebler beats did not reach the wrist, pulsations at the heart and the radial artery being as 120 to 60. There was a presystolic thrill every few beats at the apex and a systolic thrill was present over the base which was most marked over the pulmonary area. The heaving action of the right ventricle could be felt to the right of the sternum. At the apex a presystolic murmur was often audible. A systolic murmur was to be heard all over the præcordium during the forcible cardiac beat, only this murmur was loudest over the pulmonary area. Since first seen the patient had been kept in bed for five weeks and digitalis was administered during part of the time. For the last seven weeks she had been taking 5 minims of Fowler's solution three times a day but her condition remained unchanged.—The case was discussed by the PRESIDENT and Dr. WILFRED HARRIS.—Dr. SYMES-THOMPSON replied.

Mr. T. H. KELLOCK exhibited a case of Paraffin Injection for Depressed Nose four years after operation in a patient, 23 years of age. The length of time that had elapsed since the operation made him hopeful that the successful result would be permanent.

HARVEIAN SOCIETY OF LONDON.

Treatment of Incompletely Descended Testis.—Clinical Cases.

A MEETING of this society was held on April 9th, Mr. D'ARCY POWER, the President, being in the chair.

Mr. LOUIS B. RAWLING read a paper on the Surgical Treatment of the Incompletely Descended Testis, based on an investigation of 120 cases admitted into St. Bartholomew's Hospital during the past five years. The conditions prior to, and at, operation were alluded to and it was shown that the almost constant presence of a peritoneal process added to the necessity of operative treatment. In dealing with the question of the treatment of the affected testis those cases were first discussed in which one organ was normally placed whilst the other was incompletely descended. Scrotal placement was attempted in 40 cases, in 29 of which the ultimate result was observed. In 25 of these the late result was unfavourable, the testis either retreating to the pubo-scrotal, pubic, or inguinal regions, and becoming small and atrophic. In four cases only was the result at all favourable. The remaining cases could not be traced, though in three the early result showed that only failure was to be expected. For these and other reasons it was obvious that scrotal placement except in the most favourable cases was doomed to failure from the very beginning. The three alternatives, of allowing the testis to remain in the inguinal region, replacing it in the abdomen, or removing it altogether, were then considered. All evidence pointed to the fact that the inguinal testis was a source of great discomfort to the patient and that it was more than usually liable to infection, torsion, and malignant disease, whilst the uselessness of the replaced testis from a spermatogenetic point of view was generally acknowledged. In 50 cases the testis was removed, the patients being of all ages, and it was apparent that the removal of the one organ in no way interfered with the mental or physical development of the patient and the procreative powers were in no wise impaired. The normally placed testis fulfilled all the desired functions, internal and external. Granting, therefore, that due time was allowed for the further descent of the organ and that exposure showed that scrotal placement was out of the question, it was advisable that the affected organ should be removed and the inguinal canal sewn up. Attempts to place the testis in the scrotum offered the best chance of success when the operation was carried out after seven years of age and well before puberty. With regard to double failure in descent, it appeared necessary that every effort should be made to place the testes in the scrotal region, for the examination of testicles removed showed that the spermatogenetic functions were more active when the organ was in that position than when abdominally replaced. All evidence showed that the abdominally replaced testes were functionless from a procreative point of view and double abdominal replacement was therefore most inadvisable. In case of failure in scrotal placement it was even preferable that the testes should be allowed to remain in the canal rather than that they should be abdominally replaced.—The paper was discussed by the PRESIDENT, Mr. W. M. ECCLES, Mr. E. M. CORNER, Mr. E. LAMING EVANS, Mr. LAWRENCE JONES, Mr. IVOR BACK, Mr. CAMPBELL WILLIAMS, Mr. T. CRISP ENGLISH, Mr. KENNETH A. LEES, and Dr. T. CLAYE SHAW.—Mr. RAWLING replied.

Dr. KENNETH LEES showed a case of Ruptured Aortic Valve.

Dr. D. W. CARMALT-JONES showed a case of Ataxy of acute onset in association with Tabes Dorsalis.

Dr. W. H. WILLCOX exhibited a case of Arterio-Sclerosis with Retinal Changes following Parenchymatous Nephritis in a boy aged nine years.

Mr. CRISP ENGLISH showed a case of Scrotal Tumour.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE.

Unusual Cause of Dysenteric Diarrhœa in the Tropics.

A MEETING of this society was held on April 15th, Dr. F. M. SANDWITH being in the chair.

Dr. W. T. PROUT communicated some notes on an Unusual Cause of Dysenteric Diarrhœa in the Tropics. The small epidemic to which the notes referred occurred when he was chief medical officer of the Gambia. There was a company of the West India Regiment stationed there and as there was no army medical officer available he was for a considerable period the medical officer in charge and it was among the men of that company that the outbreak occurred. It took place in the early part of the rainy season—that is to say, the weather was still fine and clear but there were occasional heavy showers of rain. The men lived in large barracks, which formed two sides of a large square, and though old these barracks were clean and on the whole in good sanitary condition. It was important to note that the water-supply of the troops was derived solely from rain-water which was stored in large iron tanks. Towards the end of the dry season, as the tanks became empty, they had been thoroughly cleaned and whitewashed inside, while the inlet pipes had been disconnected until the first shower had washed the collecting area, which was the barrack roofs. At the time of the outbreak the tanks were pretty well filled. One day a man presented himself to him (Dr. Prout) at the hospital complaining of griping pains and diarrhœa with a certain amount of blood in the motions. There were very little constitutional disturbance, very little tenesmus, and none of the serious signs of an attack of acute dysentery. He (Dr. Prout) very naturally paid little attention to it until one after another of the soldiers came to him suffering from the same symptoms. At the beginning of the rains, when the water-supply was very liable to contamination, diarrhœa was by no means uncommon, but at that time curiously there were no cases of dysenteric diarrhœa among the civil population, so that it was clear that the cause was one confined to the troops. He had thought at first that some of the men had been drinking water in the town, but he was able practically to exclude that. The drinking water of the native population was derived from shallow surface wells, from four to eight feet deep, and as Bathurst was simply a sand bank the water was often brackish, and the men did not like it after being accustomed to the pure rain water. He need hardly say that the water in those wells was very much polluted as they often found a cess-pit a few feet away. He had, then, to seek the cause in the barracks, and he must confess that after the precautions which had been taken with reference to the tanks he did not at first examine the water very carefully. He had a bucketful run off and it appeared clear, sparkling, and had no bad taste or odour. An inquiry into the food-supply and a careful inspection showed nothing wrong, the men absolutely denied having eaten or drunk anything outside which could have disagreed with them, and the barrack-rooms and latrine arrangements were in perfect sanitary condition, so by a process of exclusion he was driven back to the water. He had one of the manholes taken off one of the tanks, a bucket sunk to the bottom, tilted over, and dragged along; he then found that there appeared to be some sediment. With some reluctance, for one does not like to waste good drinking water in Bathurst, he gave instructions that the water should be run off and he found at the bottom a deposit

of greenish grey mud, in which he observed some spindle-shaped bodies of about the size and shape of oats but slightly longer, which gave him the key to the problem. He admitted that he should not have known what they were unless he had seen them under different conditions a short time previously. One day when riding to the hospital in the morning he noticed on the horizon a long narrow dark cloud. By about 12 the cloud had reached the town and a dense mass of locusts was passing over and millions were settling on the ground, on the trees, and on the roofs of the houses. And when in about 36 hours the visitation passed on every blade of grass and every green leaf with the exception of a few noxious weeds had disappeared and the ground was as brown and bare as one of the streets of London. But, as the locusts ate, they had necessarily to defæcate and their stools consisted of spindle-shaped bodies which were composed of the fibrous indigestible parts of the grass matted together and also of the silicious spicules which were to be found in many grasses. He had noticed them lying about after the locusts had gone and had examined them and it was quite clear to him that those which had been deposited on the large expanse of barrack roof had become partly disintegrated and had been washed into the tanks with the first shower of rain. The specific gravity of the particles kept them in suspension for some time, so that they sank slowly, and it was evident that he had to deal with a case of irritant mechanical poisoning caused by the passage of the spicules through the alimentary canal, similar to, but not so severe as, the ground-glass poisoning of the Obeah man in the West Indies (or the diamond dust of the Egyptians). That this view was correct was shown by the sequel. He stopped the source of water-supply and utilised a surface well in the barrack yard, the water from which was carefully boiled. The roof and the gullies were cleaned and a considerable quantity of similar débris was found. The tanks were emptied and cleaned and the pipes disconnected until after the next heavy shower and the outbreak of dysentery ceased as abruptly as it had begun. It was an interesting illustration of the curious and unexpected problems of sanitation which had occasionally to be dealt with in the tropics, and the obvious lesson was that in localities where the water-supply was dependent on the collection of rain water, and where locusts occasionally paid a visit they should see that the pipes were disconnected until the excretory efforts of the insects had been removed.

Mr. J. CANTLIE observed that the epidemic resembled the "hill diarrhœa" in India which was sometimes ascribed to mica being present in the water after heavy rains in the hill country.

Dr. W. HARTIGAN said that a corresponding affection to "hill diarrhœa" was known in Hong-Kong where mica from disintegrated granite was no doubt a cause of diarrhœa after rain.

Fleet-Surgeon G. T. COLLINGWOOD, R.N., drew attention to the fact that lime carried by rain from the roofs of houses in Bermuda was ascribed as a reason for outbreaks of diarrhœa.

Dr. W. CARNEGIE BROWN pointed out that unless the first portion of water collected from roofs was prevented from entering the tanks it was impossible to avoid contamination of the water.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Town Planning and the Housing Bill.

A MEETING of this society was held on April 10th, Sir SHIRLEY F. MURPHY being in the chair.

Dr. FRANCIS E. FREMANTLE read a paper upon the Garden City, Rural Housing, and the Government. He claimed the Garden City as the pioneer in England of the town-planning movement, for it attacked the root of conditions inimical to public health on the only scientific plan by making it practicable and profitable to prevent to a large extent the creation of future evils, trusting to death and decay for the natural passing away of those that already exist. He insisted upon the importance of recognising the doctrine of linear extension as applied to towns, but with modern methods of communication the true method of urban development was along the tramway and railway and as soon as the industrial as well as the residential development of a town acknowledged this principle there would seem to be no limit to the gradual spread of towns, big and small, into the country, permeating it in all directions. In connexion with the obstacles which attended the erection of labourers' cottages in rural districts Dr. Fremantle expressed the opinion that the real difficulties lay in the depression of agriculture, which prevented an increase of wages, and in modern requirements of sanitation and decency. If, he said, the labourer could not pay more than 3*s.* a week for his cottage then the rates must be burdened to a sufficient extent to build him his necessary house—a certain proportion of the cost, representing the recent enthusiasm of the community, must fairly be charged on the public purse when other sources fail. When commenting upon the general provisions of the Housing Bill he said that the crux of the housing question was the efficiency of the executive authority and its officers, but the Bill in this respect left the machine locked. It gave no new responsibilities or duties to the county council but gave to one of its officers the power to extort information from a district officer by which the county council might take action under its previous powers that had hitherto largely been a dead letter. The Bill did nothing to remedy the palpable and crying anomalies of the position of district medical officers of health and inspectors of nuisances and was altogether framed upon wrong lines. The necessary reforms lay in the rearrangement of authorities and officers and duties so as to include in one reasonable and uniform service the whole administration of school and general public health.

The paper was discussed by Mr. MONTAGU HARRIS, Miss CHURTON, Dr. W. BUTLER, Mr. F. J. BURMAN, and Dr. W. A. BOND.

LIVERPOOL MEDICAL INSTITUTION.

Exhibition of Cases.—Butlin's Operation for Cancer of the Tongue.—Brachydactyly.

A MEETING of this institution was held on April 9th, Mr. T. H. BICKERTON, the President, being in the chair.

Dr. F. J. S. HEANEY reported a case of Malunited Fracture of Leg Bones on which he had operated twice. The fracture of the tibia was spiral and comminuted and in spite of careful treatment some 14 weeks after the injury the lower fragment of this bone was found united with the upper fragment of the fibula. The fracture was identical with one shown by Mr. Arbuthnot Lane in his recent work on fractures, and the same peculiar vice of union had supervened in both cases as well as in others that had come under observation. In the present case, union had been brought about by screwing and wiring. Dr. Heaney advocated operation in all such cases in the first instance.—Mr. G. P. NEWBOLT was of the opinion that all cases of compound fracture of the tibia and fibula should be operated on as soon as possible.

Mr. R. C. DUN reported a case of Acute General Peritonitis in a Child, aged four years, the result of perforation of a typhoid ulcer in the lower ileum. The sudden appearance of acute peritonitis was the first indication of illness. The diagnosis of acute appendicitis with peritonitis was made. At the operation no cause for the peritonitis was found. The child lived 12 hours after the operation and at the necropsy definite changes characteristic of typhoid fever in Peyer's patches were found. A small perforation through an ulcer was present four feet from the ileo-cæcal valve. Mr. Dun commented on the rarity of typhoid fever at that age and especially perforation, the fact that there were no symptoms of illness until the perforation took place, and the difficulty of making an accurate diagnosis in such a case.—Dr. N. P. MARSH thought it quite possible for a child to have an attack of ambulatory typhoid fever as met with in adults. He agreed that typhoid fever was very rare in children so young and especially perforation.

Mr. F. T. PAUL gave his experience of Butlin's Operation for Cancer of the Tongue and Mouth during the three years since Mr. Butlin's lecture had been published. The total number of cases was 35 (lip 3, cheek 3, palate 1, and tongue 28). Of these 11 were favourable in site and size, 15 were advanced, and 9 involved the bone. Of the favourable cases 9 were free from recurrence, 1 died from operation, and in 1, a slight case, no report was obtained. Of advanced cases 8 were free from recurrence, 1 had recurrence, 5 had died from it, and no report could be obtained in 1 case. Of the bone cases none were known to be free, 4 had recurrence, 1 died from the operation, 2 from disease, and no report was

obtained in 2. Altogether 17 were free, 5 had recurrence, 7 had died from the disease and 2 from the operation, and there was no report in 4. Those free had been operated on in years and months respectively, 3·4, 3·0, 2·11, 2·11, 2·10, 2·5, 2·2, 1·10, 1·9, 1·7, 1·3, 1·2, 1·1, 1·0, 0·5, 0·4, 0·4 = 17. Mr. Paul strongly advocated a definitely planned attack on the glands in all suitable cases of cancer. He previously thought that the importance of this had been fully recognised for several years. But it was one thing to accept a general principle and another to adopt a definite plan of attack, and since he had carried out thoroughly the details of Butlin's operation on the neck his results in tongue cases had been infinitely better than they ever were before.

Dr. H. DRINKWATER read a paper on Brachydactyly—a Study in Heredity, giving an account of a brachydactylous family. The chief defect in these people consisted of an abortive condition of the middle phalanx in all the digits both of hands and feet. Sometimes in the middle and ring fingers this middle phalanx was reduced to a small cubical bone, but in most instances it had become ankylosed to the ungual phalanx. In no instance was it seen as a separate bone in the first or fourth finger or toe. The first phalanx of the thumb was greatly shortened and in young children showed no sign of an epiphysis. In this respect it had undergone precisely similar changes to the middle phalanx of the fingers. The epiphysis of the so-called metacarpal bone of the thumb was at its base, whereas that of the other metacarpals was at the distal end. This showed that the metacarpal bone of the thumb was in reality the first phalanx and that the first phalanx was homologous with the second phalanx of any other digit. The same held good for the big toes. The metacarpals were all short and undulated at the distal ends. There were 25 people living belonging to one family who showed these defects. The stature and the finger measurements of the "abnormals" of these families were always less than the "normals." The hands and feet were always symmetrically affected. They were prolific, with from eight to 17 children in a family; one woman had had 99 descendants (three generations). The fecundity of the women exceeded that of the men. There was not a single abnormal individual over 23 years of age who had remained single, whilst among the normal relatives more than a dozen had remained single. The defect had been traced through seven generations comprising 174 individuals. Among the children of abnormal parents the defect was found in over 50 per cent., thus agreeing with Mendel's law of inheritance. The children of normals were in every instance normal. The deformity prevented the abnormals from learning trades requiring manual dexterity. They were all English.—Dr. T. R. BRADSHAW said that the great point of interest in the paper from the view of the physician was the possibility of the inheritance of disease taking place on Mendelian lines, so that they could in many cases assure their patients that unaffected individuals need have no fear of transmitting a family disease to their posterity. Unfortunately, there were many diseases which were clearly transmitted by unaffected people, as was shown by Dr. A. M. Gossage in the current number of the *Quarterly Journal of Medicine*.—Dr. R. J. M. BUCHANAN thought that the study of heredity in disease was important in that it might throw light on the etiology of diseases about which they still remained more or less ignorant. He had found a tendency to hereditary transmission in pernicious anæmia and quoted an instance which he had met with of a mother and two sons having died from this disease; there seemed to be an hereditary tendency in the splenic anæmia of adults.—Dr. HUBERT ARMSTRONG recalled the case of a family of which some years ago he had been able to show before the institution several members in three generations. The deformity in these was microdactyly and their hereditary history was very similar to that of Dr. Drinkwater's series and they were also symmetrical.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Duodenal Ulcer.

A MEETING of this section was held on April 3rd, Dr. JOHN M. FINNY being in the chair.

Mr. ARTHUR B. MITCHELL (Belfast) read a communication on the Diagnosis and Treatment of Duodenal Ulcer, based on a series of 19 cases which he had operated on during the previous year. He said that this was a more serious condition than gastric ulcer, being much more liable to become perforated and to lead to fatal hæmorrhage and being also less amenable to treatment by medical means. As prominent symptoms he specified (1) "hunger-pain"; (2) discomfort after food; (3) local tenderness above, and to the right of, the umbilicus; (4) hæmatemesis and melæna; and (5) early dilatation of the stomach. He thought that (at all events in chronic cases) the only reliable and efficient method of treatment was by a surgical operation.

Dr. JAMES LITTLE said that he agreed with Mr. Mitchell's view that duodenal ulcer was much more frequent in men than in women; he had also found it much more frequent among private patients than among hospital patients.

Dr. THOMAS G. MOORHEAD said that hyperchlorhydria had been a typical symptom in the cases of duodenal ulcer which he had seen.

Mr. FRANK K. CAHILL said he had been able to diagnose duodenal ulcer through giving foods of different degrees of digestibility, such as beef and pork, and watching the time relation of the onset of pain.

Dr. JOSEPH F. O'CARROLL said that they might regard gastric cases as being either muco-gastric and associated with a diminution of acid secretion or associated with an excess of acid secretion, or a necrotic or ulcerated condition. These three divisions would form a serviceable basis for diagnosis. They might assume that excess of acid was in many cases associated with ulceration in the stomach or duodenum. He hoped that they would in future be able to diagnose the condition at a stage that would prevent cases having to go to operation. Tests for acid were not always absolutely reliable, as in some cases the acidity of the stomach overstayed its emptying and set up an ache which might be relieved by food. He agreed, of course, that if they could be sure of the diagnosis there should be operation on the spot.

Mr. MITCHELL, in reply, said that he agreed with Dr. O'Carroll's remarks and had himself declined to operate in certain cases. While it was valuable to have an outstanding symptom that would give a direction to their thought it would be a mistake to regard a single symptom as infallible. He had not, however, found a case of duodenal ulcer in which there was not "hunger-pain."

GLASGOW SOUTHERN MEDICAL SOCIETY.—At a meeting of this society held recently Dr. James Mackenzie of Burnley delivered his presidental address, the subject being Some Platitudes and the X Disease. He first thanked the society for the honour which it had bestowed on him in asking him to be its honorary president—an honour which he had appreciated all the more as it was the first recognition which he had received from his own country of Scotland. All his life he had been a general practitioner he was proud to say and all his work had been done in that capacity, and it was to the general practitioner he felt that they must look for the greatest advances in medicine in the future. He was going to speak to the society on some of the "ignored trifles," the things taken for granted, the platitudes of medicine. The first platitude was the necessity for careful observation of the patient and the understanding of what they saw. In his own case the first subject in which he had particularly directed his attention was that of pain. He had begun by making notes as full as possible as to the position and character of pain complained of by patients. He found that in a large number of cases of visceral disease (such as gall-stones, intestinal and renal colic, &c.) hyperæsthesia of the superficial tissues was present—never in definite areas as Head averred—but with an indefinite changing border which was characteristic. The muscles as well as the skin showed this hyperæsthesia and the abdominal muscles (unlike other long muscles) could contract in segments over the painful lesion. Two instances were cited where a hyperæsthetic area at a distance might be either a help or a stumbling block in the diagnosis according to the experience and knowledge of the medical man. In the first case (one of gall-stones) the hyperæsthesia was present in the shoulder and arm, and in the second (one of renal calculus) the hyperæsthesia was in the skin of the scrotum. It was a most striking fact, he said, that of all the serous membranes the tunica vaginalis was the only sensitive one. The second platitude was to observe what became of their cases. There was the greatest need for this observation on the part of the general practitioner since he was the only man who could finally answer such questions as Was this cardiac murmur

dangerous? or What would be the fate of this man with an irregular heart? The third platitude was to treat the patient and not the disease. Of course all medical men agreed with that, but if they just analysed their treatment for one day they would find that in the majority of cases they rather treated the disease. The "x disease" was a name which he had applied to a well-marked congeries of symptoms which he thought should not be dubbed neurasthenia as this name cloaked our ignorance and tended to prevent a proper spirit of inquiry. The person suffering from this condition was generally spare and thin, with livid face, cold hands, and other evidences of a weak circulation. Some slight pelvic, stomachic or other visceral lesion was often present and attacks of minor ailments were frequent from which the patient quickly recovered. The patient had often a mental "twist," was very introspective, and generally was a faddist (religious or dietetic) with strong opinions and beliefs. The condition was often quickly cured, possibly by (1) an appeal to the reason; or (2) by some strong emotion; (3) frequently by pregnancy; or (4) by some marked change in the mental outlook or mode of life. The President hoped that by this ridiculous name medical men might be reminded of their ignorance of its pathology and stimulated to research.—Mr. A. E. Maylard, in conveying to the honorary President the cordial thanks of the society for his most interesting address, referred in particular to the originality of mind and the keenness of observation which were manifested throughout and hoped that they would have much more work from Dr. Mackenzie and that he would live long to give it.—The President briefly acknowledged the vote of thanks.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—A meeting of this society was held on April 10th, Dr. E. Hobhouse being in the chair.—Mr. Hugh Lett read a paper on a Case of Henoch's Purpura associated with Intussusception. The patient, a child, aged three years, was quite well until two days before admission to hospital. He then had pain and swelling of the left knee and elbow. On the next day both legs were swollen and severe paroxysms of abdominal pain were experienced. On the same afternoon two purpuric spots were seen on the left leg. The patient was admitted on the following morning and a cæcal intussusception was operated upon and reduced. The purpura steadily became worse and the patient died from a second intussusception of the enteric variety nine days after the first operation. Mr. Lett drew attention to the difficulty which was often met with in diagnosing between intussusception and Henoch's purpura when the abdominal symptoms appeared before the onset of any cutaneous lesions and also to the difficulty of deciding in many cases of undoubted Henoch's purpura whether an intussusception were present or not. He indicated the main points in the differential diagnosis between the two conditions and laid stress on the importance of determining the presence of a tumour before making a diagnosis of intussusception. The paper was discussed by Dr. G. A. Sutherland and Mr. Duncan C. L. Fitzwilliams.—Dr. J. Porter Parkinson read a paper on a fatal case of Tetanus Neonatorum in an infant aged two weeks. The infant had had the umbilicus dressed with fuller's earth and it was suggested that this might have been the cause of infection both in this child and also in the previous child who had died from tetanus. Dr. Parkinson drew attention to the prevalence of this practice and to the fact that this possible source of tetanus was well recognised by coroners. He thought the knowledge of this should be more widespread.—Dr. L. G. Guthrie showed a case illustrating Eustace Smith's Bruit. The patient was a boy aged seven years. The superficial veins were enlarged over the front of the chest. An undulating musical venous bruit could be heard at the base of the heart, occupying the whole of the cardiac cycle. The bruit was intensified and the venous engorgement became more pronounced when the head was retracted. The condition was probably due to pressure of enlarged mediastinal glands on the innominate vein or superior vena cava.—Dr. F. S. Langmead also showed a case with Eustace Smith's Bruit. The patient, a girl, aged five and a half years, had had whooping-cough in April, 1907. Since then she had had frequent coughs which were neither laryngeal nor paroxysmal. There was some impairment of note in the interscapular region on the right side. To the right of the manubrium sterni a definite to-and-fro rushing murmur was heard when the head was retracted, but it was lost when the head was flexed.—Dr. Porter Parkinson showed a case of Aortic Regurgitation in a boy aged four years. There was no history of rheumatism or other acute specific fever.—Dr. George A. Carpenter showed a case of Recovery from Encephalitis in a girl aged one year and eight months. The patient had had screaming fits, double optic neuritis, and squint. The cerebro-spinal fluid was sterile and contained no cellular elements. The optic neuritis disappeared.—Mr. A. Hamilton Burt showed a case of Hypospadias.—Specimens were shown by Dr. Hobhouse, Dr. E. Cautley, Dr. Carpenter, and Mr. John Poland.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held at Manchester on April 10th, Dr. A. J. Wallace (Liverpool), the President, being in the chair.—Dr. Alexander Stookes (Liverpool) exhibited specimens of: (1) Fibromyoma Uteri; and (2) Adeno-carcinoma Corporis Uteri which had given rise to similar physical signs. The former had occurred in a patient, a II.-para, aged 43 years, who had suffered for two years from menorrhagia and for the last four months had had continuous bleeding. A nodular tumour could be felt in the lower abdomen and per vaginam a polypoid mass occupied the cervical canal. The growth proved to be multiple fibromata. The second specimen occurred in a single woman, aged 51 years, who had enjoyed good health until 18 months previously, when she began to have severe pains in the left side and menorrhagia. These symptoms persisted. An irregular, hard tumour was felt in the lower abdomen which on abdominal section proved to be the uterus enlarged by adeno-carcinoma involving the entire thickness of the uterine wall. The right ovary was also the seat of adeno-carcinoma. Recurrence with a fatal result occurred four months after the operation.—Dr. Henry Briggs communicated a case of Pelvic Kidney with Congenital Absence of both Müllerian Ducts occurring in a patient, aged 33 years, who had been married for one year and who complained of occasional, never periodic, pain in the lower abdomen and slightly increased frequency of micturition. She had never menstruated. He gave an accurate anatomical description of the kidney as revealed at an exploratory operation.—Dr. Arnold W. W. Lea (Manchester) narrated a case of Dermoid Cyst of the Mesentery in a woman, aged 39 years, and showed the specimen and sections of it obtained by operation. The cyst was lined by large multinucleated cells but did not show any specialised epithelial elements.—Sir William J. Sinclair (Manchester) read a paper on Analgesia *versus* Anæsthesia in Obstetrical and Gynæcological Practice. After a brief historical review he referred to the method of spinal anæsthesia produced by cocaine and its derivatives, and to the inadvisability of such procedure in obstetrics. A few years ago great successes were reported from the lying-in hospitals of Germany from small doses of scopolamine, but this was not without real danger both to mother and child. He advocated the use of a combination of morphine, alcohol, and cocaine as an analgesic in minor gynæcological operations and in such manipulations as the removal of retained placenta following abortion, &c. He gave two ounces of alcohol, masked by the liquid extract of liquorice, about two hours before operation, followed by a hypodermic injection of a quarter or half a grain of morphine 20 minutes before the operation. The vagina was then swabbed with a 10 per cent. solution of cocaine. By this method any minor operative procedure was possible. The amount of morphine required modification according to the type of patient. In some cases where a general anæsthetic was necessary the amount required was exceedingly small if morphine and alcohol were previously administered.—Dr. A. Kynvett Gordon (Monsall) and Dr. Lea both spoke in favour of this method from their own experience of it.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on April 2nd, Dr. G. Thomson, the President, being in the chair.—Dr. Arthur J. Hall showed the following: 1. A girl with a very Moveable Liver. On deep inspiration the lower edge was tilted forwards and formed a prominent tumour. 2. A similar case in an adult woman. 3. A case in which the diagnosis between Herpes Zoster and Herpes Febrilis was difficult. The eruption recurred every three months in the region supplied by the second division of the fifth nerve. 4. A patient with a Cavity in his Lung and much Offensive Sputum, which had been repeatedly examined for tubercle bacilli with negative results. Dr. Hall demonstrated by means of charts the effects of Chaplin's creasote inhalation method, which had been highly successful.—Dr. H. G. M. Henry

showed cases of Acute Anterior Poliomyelitis in an adult, Hæmatomyelia, Ataxic Paraplegia, Tricuspid Disease, and Complete Transposition of the Viscera.—Mr. S. Snell showed the following: 1. Two cases of Steel in the Eye removed by the electro-magnet. Both were in the vitreous. In one the chamber was filled with blood, but, nevertheless, eight weeks after the accident removal of the foreign body through the sclerotic was followed by excellent vision. The other was adherent by one extremity to the posterior capsule, the other end being free and moving on the approach of the magnet. It was immediately removed through the sclerotic incision. 2. Three cases of Excision of the Lacrymal Sac for Chronic Dacryocystitis. 3. Six cases of Hypopyon Ulcer which had been treated by anti-pneumococcic serum. 4. Streptococcal Inflammation of the Eyelids (treated with serum) and a rare Tumour of the Lid. 5. Two cases of Symblepharon treated by grafts; one, Thiersch, the other, conjunctival from another case. 6. A case of Ectropion treated by a non-pediculated flap 20 years ago, the result remaining excellent.—Mr. R. J. Pye-Smith showed a man, 30 years of age, with Dislocation of the Cervical Spine. He had been caught in a revolving shaft. Some thick steel tools in his pocket were much bent. His head was now permanently flexed and projected forwards. He could move the head at the occipito-atlantal and atlanto-axial joints. There was no paralysis. The dislocation was thought to be about the third or fourth cervical.—Mr. Graham S. Simpson showed a boy, aged 16 years, suffering from Spondylitis Deformans. The disease started four years ago in the right hip. Since then the spine had become increasingly stiff and there was now no movement possible from the seventh cervical to the coccyx. The disease resembled osteo-arthritis in its exacerbations of pain at the onset of wet weather.

PATHOLOGICAL SOCIETY OF MANCHESTER.—A meeting of this society was held on April 8th, Dr. J. J. Cox, the President, being in the chair.—Dr. D. Orr and Dr. R. G. Rows showed lantern slides illustrative of the Toxic Lesions of the Spinal Cord found in cases of Abdominal Cancer. The characteristic change consisted of atrophy of the myelin sheaths in the central portions of the cord and was most marked in the cervical region.—Dr. A. Corsar Sturrock described a case of Hæmangeio-endothelioma of the Liver. It occurred in a woman, aged 44 years, who died after four months' illness. All the organs except the liver were fairly healthy. The liver was greatly, but uniformly, enlarged and of normal shape, smooth on the surface, firm on section, and mottled or nutmeg-like in appearance. The capillary spaces within the lobules were dilated and filled with proliferated endothelial cells, many of these being free and mingled with blood corpuscles. These cells varied in size and shape, some of their nuclei showing mitotic figures. The columns of hepatic cells were atrophied and compressed, the atrophy occurring mostly in the peripheral zones of the lobules. No fatty changes or iron deposits were seen in the hepatic epithelium remaining. The endothelial proliferation did not occur in nodules but was uniform throughout the whole liver, and in one place where a small cavernous angeioma existed the endothelium had taken on the same proliferative change. The very evident relation of the tumour to the vessels indicated a source of irritation connected with the blood, the tumour change seeming to originate in the same way as a specific inflammation. No metastasis occurred although many of the proliferated endothelial cells must have been conveyed to the general blood stream, as if such cells when conveyed beyond a certain sphere of influence ceased to proliferate so as to produce metastatic deposits. That sphere of influence must be the liver parenchyma in a state of more or less disordered activity.—Dr. W. Milligan showed: (1) A Temporal Bone from a case of Suppurative Middle-ear Disease with cholesteatoma, temporo-sphenoidal abscess, and septic encephalitis; (2) a Temporal Bone from a case of Epithelioma of the Middle Ear; (3) two Temporal Bones from cases of Fracture of the Base; and (4) specimens of Laryngeal Benign Growths.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on April 10th, Dr. J. Allan being in the chair.—Mr. R. Lawford Knaggs showed a case of Interscapulo-thoracic Amputation by Littlewood's operation performed for Chronic Axillary Suppuration.—Mr. W. Thompson showed a man two years after Removal of six and a half feet of Small Intestine which was Ruptured.—Dr. E. F. Trevelyan showed a woman, aged 59 years, in whom Tremor of the Left Hand, probably due to early paralysis agitans, had followed the Amputation of a Finger. Also a girl, aged nine years, with recovery from Meningitis following whooping-cough. The patient now suffered from vertigo.—Mr. J. F. Dobson showed a case of Diffuse Tuberculous Peritonitis which had been complicated by Acute Intestinal Obstruction. The patient was admitted in April, 1907, suffering from acute intestinal obstruction. On opening the abdomen the peritoneum was found to be thickly studded with miliary tubercle; the obstruction was caused by the adhesion of a coil of ileum to a breaking-down mesenteric gland. The adhesion was separated and the dislocated gut was opened and emptied of its contents; the opening in the gut was closed by suture; the diseased gland was enucleated from the mesentery. The patient was now in excellent health.—Dr. A. L. Whitehead showed a case of Chronic Otorrhœa, Mastoid Disease, Facial Palsy, and Labyrinthine Suppuration, with Cerebellar Abscess. Also a case of Optic Neuritis in One Eye, with Consecutive Atrophy in the other, following influenza eight weeks ago.—Mr. Alexander Sharp showed a case in which Severe Tuberculous Laryngitis had become practically healed under treatment by creasote internally, and the application locally of menthol in parolein, lactic acid, curetting, and galvano-cautery.—Dr. A. G. Barrs showed a case of Rheumatoid Arthritis, with Enlargement of the Spleen.—Dr. T. W. Griffith showed a man with Bilateral Facial Paralysis.—Dr. J. Gordon Sharp showed a case of Infantile Spastic Paraplegia in a boy, aged 12 years. He was a seven-months child and fits commenced when three days old.—Mr. H. Secker Walker showed a case of Detached Retina, probably due to sarcoma of the choroid.—Cases were also shown by Dr. W. H. Maxwell Telling, Dr. T. Churton, and Mr. Michael A. Teale.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on April 15th, Dr. L. W. Marshall, the President, being in the chair.—Mr. W. B. Blandy showed a man, aged 23 years, the subject of Thomsen's Disease. The symptoms of temporary stiffness of many of the muscles during voluntary movement had been present for eight years, the muscles themselves being well developed. His only surviving relative, a sister, also suffered from similar symptoms.—Dr. A. C. Reid showed three male patients, aged respectively 54, 35, and 60 years, who had suffered from varying types of Cerebral Syphilis during the last 12 months. In all there had been headache, vomiting, ocular paralyses, and changes in the fundus oculi, while in the third case the illness set in with a sudden apoplectiform attack and loss of consciousness whilst in the street. In this case severe laryngeal ulceration also occurred.—Dr. J. A. Waring read a paper on the Dangers and Evil Effects of Infant Binders, in which he condemned binders as harmful and unnecessary. Warmth was supplied better by loose clothing and support was not needed. The only justification for the use of binders was as a safeguard against rough handling, especially about the recently ligatured umbilical cord during the first two or three weeks. The constriction of binders was frequently responsible for such injurious effects as restlessness and loss of sleep, vomiting, inguinal and umbilical hernia, chest deformities, interference with free respiration which was of great importance where there was already pulmonary disease, and interference with the cerebral circulation leading to convulsions and other serious results. Such constriction was probably largely responsible for many of the cases in which infants were said to be overlain.—The paper was discussed by the President, Dr. W. Hunter, and Mr. W. Morley Willis.—Dr. Waring replied.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on April 2nd, Mr. H. H. Taylor, the President, being in the chair.—On the motion of the President a resolution of deep sympathy with the family of the late Dr. H. C. Lecky was passed.—Dr. J. S. Risien Russell read a paper on the Diagnosis of Intracranial Tumour, in which he reviewed seriatim the localising signs and symptoms of tumours of the brain in the various areas.

MEDICAL INSPECTION OF SCHOOL CHILDREN.—At a recent meeting of the Gloucestershire county council it was decided that the county medical officer of health should be appointed to undertake the ordinary sanitary work of the county and also, with the aid of assistants, the medical inspection of the school children.

Reviews and Notices of Books.

Text-book of Otology for Physicians and Students. By F. BEZOLD, M.D., Professor of Otology, Munich; and F. SIEBENMANN, Professor of Otology at Basle. Translated by J. HOLINGER, M.D., Chicago. With 75 figures. Chicago: Colegrove Co. Pp. 314. Price $3.50 net.

THIS is a translation of the work which we reviewed last year and there can be no doubt that a translation of it should be of extreme value to all English-speaking otologists. Unfortunately, however, the translation which we are considering, although in the main good, is in parts so inaccurate that were a beginner in otology to take it as his chief authority without having recourse to the original German he would be liable to fall into grave errors, even anatomical ones. On p. 13 of the translation the long process of the incus is said "to extend upwards and backwards in a vertical direction," a thing in itself impossible, the word "backwards" being gratuitously inserted. Again, on the same page the "cupola of the cochlea" is said to "rest against the tympanic end of the osseous Eustachian tube, whereas it should be "it borders on the commencement of the bony inner wall of the tube." On p. 14 the word *Krankheitserscheinungen* is translated "diseases," whereas it should be "symptoms." On p. 15 we meet with more anatomically incorrect translations. The facial nerve is said "to run mostly on the inside of the temporal bone," instead of that "the trunk of the nerve lies chiefly within the temporal bone." Again, on the same paragraph it is said that the "canal of the facial nerve forms a horizontal protuberance on the inner wall of the aditus, just above the oval window." No comment is needed on this. In one of the most important chapters in the book, Chapter VIII., on the Testing of Hearing, in the second paragraph it is stated that "it is fundamentally important for our examination of the function of hearing that all noises can be placed in the line of the sound scale. We have therefore completely examined the hearing as soon as we know quantitatively the hearing for all tones, and do not need to care for the noises." We feel convinced that this paragraph will convey but little to any reader. It would have been better rendered: "Going through all the sounds of the scale is fundamental for our examination of the hearing function. For in these cases, if we have thoroughly tested and established the qualitative hearing power for the whole series of tones, no further investigation of sound is necessary." On the same page we read that by certain methods "any audible number of vibrations," and so on. This should read "any number of audible vibrations." The mistakes in translation and composition are frequent but we can allude to only a few more. For instance, on p. 66 the word "improvement" is used with regard to bone conduction instead of "prolongation." On p. 70 we find the "prolongation of bone conduction above the normal interchange of the sound conducting apparatus was accepted in our discussions as a fact pure and simple, which we met with in all our observations," whereas this sentence should have concluded "which we continually met with in our observations."

From the foregoing examples it must be obvious that, valuable though the translation will be to those whose knowledge of German is not sufficient to allow them to read the original text but who have sufficient acquaintance with the subject matter to be able to recognise inaccurate translations, and knowledge enough of German to work out the correct translations where necessary, this translation, if accepted as correct, must be conducive to erroneous conceptions. We sincerely hope that the translator will carefully revise his rendering of this work, which is of inestimable value, so that it shall be both more readable in places and more accurate. Of the subject matter we have nothing to add to our previous remarks on Professor Bezold's work.

Diseases of the Digestive System (Modern Clinical Medicine). Edited by FRANK BILLINGS, M.D., Professor of Medicine, University of Chicago, &c. An Authorised Translation from "Die Deutsche Klinik," under the general editorial supervision of JULIUS L. SALINGER, M.D. London: Sidney Appleton. 1907. Pp. 824. Price 25s. net.

THE volume before us contains a series of articles written by eminent authorities in Germany and Austria upon matters connected with the digestive system. It opens with a contribution on Stenosis of the Œsophagus, by Th. Rosenheim of Berlin, followed by a series of articles on Gastric Disorders, W. Fleiner of Heidelberg writing on Gastric Lavage; H. Leo of Bonn on Functional Disorders of the Stomach; H. Strauss of Berlin on Secretory Disturbances; F. Riegel of Giessen on Gastric Dilatation; C. A. Ewald of Berlin on Gastric Ulcer and Hæmorrhage; and J. Boas of Berlin on Gastric and Intestinal Carcinoma. F. Hirschwald of Berlin deals with Displacements of the Abdominal Viscera and L. Oser of Vienna writes a very brief account of Diseases of the Pancreas. Jaundice and Hepatic Insufficiency are dealt with by O. Minkowski of Cologne; Chronic Inflammation of the Liver, by E. Stadelmann of Berlin; Neoplasms of the Liver and Biliary Passages, by Fr. Kraus of Graz; Echinococcus of the Liver, by Stadelmann; and Gall-stones, by Neusser of Vienna. Acute Peritonitis, Diffuse and Circumscribed, including Perityphlitis, is discussed by O. Vierordt of Heidelberg, and Chronic Perityphlitis, by Boas who also treats of Constipation and Hæmorrhoids. An account of the Methods of Examining the Fæces is given by J. Strasburger of Bonn; and Diarrhœa, Intestinal Catarrh, and Intestinal Tuberculosis are dealt with by Fleiner. G. Hoppe-Seyler of Kiel writes on Mucous Colic and Membranous Intestinal Catarrh and the book ends with an account of Intestinal Constriction and Occlusion by H. Nothnagel of Vienna.

The foregoing array of distinguished names sufficiently indicates that the book contains valuable matter. It is not, and does not profess to be, a complete and systematic text-book of the subject with which it deals, as it is easy to point out matters of importance, such, for example, as tuberculous peritonitis and the various forms of gastritis which are entirely omitted. The translation is of about the usual degree of merit found in American translations of German works. It is intelligible but not elegant, and here and there we meet with curious expressions, as, for example, "the abdominal press" for the intra-abdominal pressure, "its inclosure, the appendix" for the organ which incloses it (a calculus).

On the whole, the book is interesting and useful as illustrating contemporary continental practice, which differs in some points from that usual in this country—such differences lying in the views prevalent on subjects such as the need for immediate operation for appendicitis and the early use of gastric lavage. Discussion of opposing ideas cannot fail to be stimulating and valuable, as the last word has not been said on many points which are too readily accepted as settled by dogmatic assertions.

A Short Practice of Aural Surgery. By J. ARNOLD JONES, M.B., Ch.B. Vict., Assistant Aural Surgeon to the Manchester Eye and Ear Hospital. With 25 figures. London and New York: John Lane. 1908. Pp. 246.

THIS little work, produced by a young aural surgeon, is one which possesses the great advantage of being written in a very readable way. The first chapter is devoted to a short *résumé* of the more important anatomical and physiological

data. There is one point in this chapter which might have been written otherwise and that is "that the foramen ovalis is seen lying just below and between the two limbs of the genu formed by the canal for the facial nerve." The part on Examination of the Patient is written very clearly but here again there is an anatomical error, for it is stated that the vessels of the labyrinth communicate with those of the tympanum through those of the inner wall of the middle ear, which we are under the impression is exactly what they do not do. On p. 121, in considering the treatment of chronic suppurative disease of the middle ear, the following prescription appears: "Politzerisation should be practised as a help in the evacuation of the discharge, which is best done while the meatus is filled with hydrogen peroxide, which is thus sucked in and forced out of the middle ear." We fail to understand how it is sucked in. On p. 180 the recognition of the diagnostic value of the so-called double negative Rinné is attributed to Lake. This is, of course, incorrect, as this important discovery was made by Professor Bezold of Munich. In the treatment of the wound after operating for acute disease of the mastoid the first dressing is advised to be performed within 24 hours. This certainly is erring on the side of safety, and in describing the radical mastoid operation one style of instrument is recommended for the right side and another for the left, which seems to us scarcely necessary or advisable.

Speaking generally, we think that notwithstanding the above criticisms this book is one which will be extremely useful to students and practitioners and which does credit to the author.

Manual of Ophthalmic Operations. By F. P. MAYNARD, M.B. Durh., D.P.H. Camb., F.R.C.S. Eng., Lieutenant-Colonel, Indian Medical Service; Professor of Ophthalmic Surgery, Medical College, Calcutta, &c. With six stereoscopic plates and 104 illustrations. London and Calcutta: Thacker and Co. 1908. Pp. 223. Price 9*s.* net.

UNTIL the publication recently of Grimsdale and Brewerton's Text-book of Ophthalmic Operations there was no work of importance in the English language devoted to this branch of ophthalmology. In reviewing this book we pointed out that it was a systematic treatise in which the opinions and predilections of the authors were kept severely in the back ground and that there was still room for an authoritative work, written from a more personal point of view, by an operator of extensive experience. Such a work is supplied in Colonel Maynard's manual. The author has benefited by the peculiar advantages of practice for many years in India; he has, moreover, availed himself to the full of the somewhat scanty opportunities which his position affords him for keeping abreast of the methods in vogue in England and on the continent. The result is a work of sterling value which may be safely recommended to the student and will be read with profit by every ophthalmic surgeon. The latter will appreciate the excellence of the general teaching, though he will doubtless discover details in Colonel Maynard's practice which will fail to meet with his approval. None of the latter, however, can be included under the opprobrious category of "fads." All have been adopted deliberately upon the basis of accurate knowledge of ophthalmology and ophthalmic pathology, and though individuals will differ as to the soundness of the deductions they will find little reason to quarrel with the facts upon which they are founded. We may cite as examples the author's routine use of atropine before extraction of cataract and of eserine immediately after iridectomy for glaucoma. The experienced ophthalmologist will probably be most interested in the chapter on expression of the lens in its capsule by the method of Major Smith, I.M.S. The author has somewhat modified his adverse criticism of the operation which was based upon 175 cases in which he performed it. He now holds that it is valuable in hypermature cataract and in some cases of unripe cataract.

The recently described operations of Professor Lagrange and Lieutenant-Colonel Herbert, I.M.S., for glaucoma receive attention; the latter, though in Colonel Herbert's own words, is almost unintelligible; we think that neither is yet of proved utility and like cyclodialysis should have been omitted. In extirpation of the lacrymal sac Axenfeld's retractor is used in an original manner; after considerable experience we are of opinion that it is a clumsy instrument which is best dispensed with altogether. We notice that Worth's advancement operation is chosen for description. If we had not found this to be the rule in recent publications we should not have considered it necessary to comment upon it. How many of the authors really adopt this method? In our opinion it is founded upon a fallacy and practical experience shows that it possesses notable disadvantages. The only novelty about the illustrations is the use of stereoscopic photographs. Considering the extreme difficulty of obtaining satisfactory photographs—doubtless less in India than in England—the results are gratifying. None the less, we do not think that they are worth the trouble and expense.

The book is well printed and is handy in size. We cordially wish it the success which we believe it fully to deserve.

Confessio Medici. By the author of "The Young People." London: Macmillan and Co. 1908. Pp. 158. Price 3*s.* 6*d.*

THE nameless author of this confession, or rather profession of professional faith and of faith in his profession, boasts that he has stolen half of his title from Sir Thomas Browne, and we can charge him with including in his plunder no mean measure of the quality of English medicine's sweet philosopher. Not that the matter or the manner of these essays owes direct inspiration to the physician of Norwich, but that in their pages, as in Browne's own stately prose, is manifest a ripe counsellor uttering words of convincing worth. The book forms another link of the right metal in the chain that binds medicine to letters; much of it is infused with true art no less than clear thought, although our author may not thank us for saying so, seeing that he has a measured warning for all who would woo the austere spirit of Practice (of which company he professes membership) lest they should be tempted to dalliance in the Palace of Art; but his phrasing of the very warning proclaims him free of that household no less than the whole tenour of his thought shows him one for whom a seat is set in the sterner hall of philosophy. His essays range over the whole career of medicine, chiefly as the general practitioner finds it, for the first is concerned with the voice that bids the boy enter upon its service, and the last with the inevitable mandate at which the man must leave all earthly things for a destiny, he would have us think, other than the speculations of Haeckel's school can tolerate. We commend the book to every student and every practitioner of medicine, for it contains advice which is above rubies, the strong, sane, and tender guidance of one who has himself trodden the thorny track. His style is well shown in two of his chapters, that in which he worships at the shrine of the genius loci of his own hospital and that in which his shrewd wit seeks to shatter with ringing blows the fetters of materialistic and monistic thought in which the "deserted maiden Psyche" is lying bound. With a right good heart does this debonair champion sally forth to do battle with the dragon of Deterministic degradation for her honour. This Confessor is a notable maker of phrases and we are tempted to quote from his store. Let these two suffice: "I know of one who said to

a friend, *I don't want my doctor to talk to me about the National Gallery:* which is a shrewd saying. People who are seriously ill care no more for preciosity in us than for gold dust in the beef-tea." And again: "Hospital letters are a survival of the bad Georgian way of *patronising the unfortunate.* Nothing can justify them, unless it were the existence of people who would not subscribe even to the maintenance of Heaven, without an Annual Report and the right to recommend four souls for immediate admission, if found suitable cases." One word more. Our author knows his Juvenal and makes such apt employment of his Shakespeare that we should welcome from his pen a set of essays frankly concerned with the interpretation of the Master's mind. It may seem a bold thing to urge the further tilling of that well-cultivated field, but the author of "Confessio Medici" has the stuff in him that, if we are not mistaken, might well enhance its fruitfulness.

LIBRARY TABLE.

The Cottage on the Fells. By H. DE VERE STACPOOLE. London: T. Werner Laurie. 1908. Pp. 306. Price 6*s.*—Mr. Stacpoole in his most recent work has made quite a departure from his previous book, "The Blue Lagoon," that charming idyll of the South Seas with its delicate flavour of Theocritus XXVII., or perhaps we should rather say the Daphnis and Chloe of Longus. "The Cottage on the Fells" is a story of a murderer who was a genius in his horrible way. We will not give away the plot but it is a good one and the mystery is kept up till the end. There is one point where we think Mr. Stacpoole must have been nodding and that is in Chapter XXIX., where the motor-car of the director of the Criminal Investigation Department which is taking him to a road near Holland House goes from Scotland-yard all the way round by Regent-street, the Bayswater-road, Silver-street, and Kensington-road. As the director was in a hurry this seems inexplicable. Why not have gone by Piccadilly? There is nothing medical in the book but that is all the more reason why medical readers will find in its pages welcome relaxation from professional study.

Lessons in Practical Hygiene for Use in Schools. By ALICE RAVENHILL, F.R San. I., late Lecturer on Hygiene and Inspector, County Council, West Riding of Yorkshire; Lecturer, University of London Extension Board. With Preface by Professor M. E. SADLER, M.A. Leeds and Glasgow: E. J. Arnold and Son, Limited. 1907. Pp. 750. Price 5*s.* net.—This is far more than a work on elementary hygiene. It is divided into five parts and ranges over an extensive series of fields of study such as the requirements, phenomena, and characteristics of life, the conditions by which life is affected, air and water. Nearly 200 pages are devoted to the human body; about 170 to food and foodstuffs, cooking, beverages, and food preservation; about 80 to personal hygiene; and 120 to the dwelling in all its aspects. Many of the chapters contain much that is far outside the scope of the sixth standard child. Careful lists of apparatus and materials required are given, while full directions are furnished for the performance of experiments. It is not a textbook in the ordinary sense of the term to be placed in the hands of the pupil. It appears to us to be rather a guide to, and most useful quarry of, information from which the teacher can select material for his lectures. It is throughout thoroughly practical but the number of experiments given is so large that no single scholar could overtake them. It will prove a most useful source of information to teachers of hygiene and indeed to teachers of elementary physiology in secondary and higher schools. It is excellent throughout and is a trustworthy guide to practical hygiene, while its price brings it within the reach of all.

First Aid to the Injured: Six Ambulance Lectures. By the late Dr. FRIEDRICH ESMARCH. Translated from the German by H.R.H. PRINCESS CHRISTIAN. Seventh edition, revised and enlarged, with additional illustrations. London: Smith, Elder, and Co. 1907.—The first English edition of Dr. Esmarch's lectures on ambulance work was published by the Princess Christian in 1882, and the appearance of a seventh edition 25 years later is a good guaranteee of the favour with which it has met. The favour has been deserved, for it is well written and clearly arranged and the translation is worthy of its author. We can safely commend it to all who are engaged in ambulance work or lecturing. Some of the old pictures which illustrate the book appear somewhat quaint at a day when we are accustomed to elaborate photographic reproductions, but new illustrations have been added and though the old blocks are a little the worse for wear they serve their purpose well enough.

Aids to Surgery. By JOSEPH CUNNING, M.B., B.S. Melb., F.R.C.S. Eng., Surgeon to the Victoria Hospital for Children; Assistant Surgeon to the Royal Free Hospital. Second edition. London: Baillière, Tindall, and Cox. 1908. Pp. 404. Price, paper, 3*s.* 6*d.*; cloth, 4*s.* net.—This is the second edition of a little revision book for students about to be examined in surgery, which we reviewed when it first appeared (THE LANCET, March 26th, 1904, p. 878). We then said that it was an excellent product of its class and although all such books must owe a great deal to larger works yet they have a distinct use, provided they are not abused. A few pages of the book have been rewritten. The information is sound and the book seems likely to become in surgery much the same as "The Pocket Gray" has become in anatomy. We note that the present edition, although larger than the first, is slightly cheaper in price.

The Pocket Anatomy. Sixth edition, revised and edited by C. H. FAGGE, M.B., M.S. Lond., F.R.C.S. Eng. London: Baillière, Tindall, and Cox. 1908. Pp. 269. Price 3*s.* 6*d.* net.—The little green covered book which has been carried about by many generations of students at the time when they are preparing to face their examiners in anatomy, and which has declared its normal *habitat* under the title of "The Pocket Gray," is to be known in future as "The Pocket Anatomy." Mr. Fagge in his preface states that his reason for the change of title is that he has borrowed from the works on anatomy by Quain, Cunningham, and Morris in compiling this edition, so his revised title is well justified. As we have often said, this class of book can be used and abused—it may be either a revision book or a cram book—but "The Pocket Anatomy" in intelligent hands is, we consider, an extremely useful little book. We see that Jonesco's description of the pelvic colon is given and the term "rectum" is restricted to that portion of the gut to which it is rightly applicable. The book is carefully indexed.

A Manual for Hospital Nurses. By E. J. DOMVILLE, L.R.C.P. Lond., M.R.C.S. Eng. London: J. and A. Churchill. 1907. Pp. 152. Price 1*s.* 6*d.* net.—We need say little about this book beyond recording the fact that it has reached its ninth edition, which is a guarantee of its popularity. It is an elementary book on nursing, intended for both nurses in training and others engaged in attending on the sick, and it briefly covers the usual ground in an adequate manner.

HEALTH OF BOURNEMOUTH.—Mr. P. W. G. Nunn, the medical officer of health of Bournemouth, in his annual report for 1907, which has just been issued, states that on an estimated population of 73,000 the total number of deaths was 827, giving a death-rate of 11·32 per 1000. 1206 births were registered, corresponding to a rate of 16·52 per 1000.

THE LANCET.

LONDON: SATURDAY, APRIL 25, 1908.

The Research Defence Society.

WE publish in another column a letter from Earl CROMER announcing the formation of the Research Defence Society, of which he is the first President, and we have appended to that letter the names of the Vice-Presidents, which sufficiently show the powerful and varied nature of the support which the movement is receiving at its inauguration. It is to our mind absolutely necessary that the society should start under such fortunate auspices, for it is to act in an educational and advisory capacity in behalf of members of the public and members of the medical profession who want to know the truth about physiological and bacteriological work as pursued by the medical profession and the authorised investigators. Membership is open to everyone on payment of a small annual subscription, as is pointed out in Lord CROMER'S letter, and it is imperative that the public should feel that the sayings and doings of a society which extends so wide an invitation have their origin in a desire and a capacity to inform and derive no inspiration from prejudices. The society will do its utmost to counteract the copious inaccuracy of sentimentalists, the astonishing self-esteem of faddists, and the misguided and unrestrained zeal of certain agitators who never rest from their endeavours to prove that the scientific physiologist is a person of devilish cruelty, in which connexion it should be noted that among its members the names can be found of leading members of the Society for the Prevention of Cruelty to Animals. The publicity which much of the proceedings before the Royal Commission on Vivisection has already received has enabled the public to gauge the kind of evidence upon which the most serious accusations of inhumanity against physiological workers have been lightly founded, and the Research Defence Society should have no great difficulty in explaining to all reasonable folk on which side the truly merciful man is to be found.

The society has for its president the Earl of CROMER; it numbers among its vice-presidents the presidents and chairmen of 12 of the best known London hospitals, the secretaries of the Metropolitan Hospital Sunday Fund and the King's Hospital Fund for London, six bishops and four deans; such veterans of science as Lord AVEBURY, the Rev. Dr. DALLINGER, Sir NORMAN LOCKYER, Sir JAMES DEWAR, Sir JOSEPH HOOKER, Sir DAVID GILL, Lord ROSSE, Sir WILLIAM HUGGINS, Dr. HUGHLINGS JACKSON, Sir JAMES CRICHTON-BROWNE, and Sir HENRY ROSCOE; such famous professors as Sir GEORGE DARWIN, FRANCIS DARWIN, Sir E. RAY LANKESTER, and Sir WILLIAM RAMSAY, as well as the Regius Professors of Physic in the Universities of Oxford and Cambridge, and the Principal of the University of London; such well-known medical men as Sir SAMUEL WILKS, Sir FREDERICK TREVES, Sir JOHN BATTY TUKE, Sir JAMES REID, and Sir THOMAS SMITH; men of affairs like Lord STRATHCONA, the Duke of ABERCORN, the Earl of HALSBURY, Lord LINDLEY, Lord CLAUD HAMILTON, Lord BATH, Sir HERBERT MAXWELL, Lord ROBERT CECIL, Canon DUCKWORTH, and Sir ALFRED JONES; men of art and letters like Sir ALMA TADEMA, Sir A. CONAN DOYLE, and Sir LUKE FILDES. We make no attempt to give a larger selection of the names of those who have already promised adherence to the new association—the list is already fully representative of all that is best in medical science and medical organisation, professors and practitioners uniting with educational authorities and those responsible for the conduct of great charities in the intent to furnish the public with an opportunity of learning the truth about scientific teaching. The honorary secretary of the Research Defence Society is Mr. STEPHEN PAGET (70, Harley-street, Cavendish-square, London, W.), who will be glad to furnish all information as to the movement, and to whom scientific workers owe a heavy debt of gratitude for the energetic way in which he has worked for the formation of the new association.

We wish the society well. It has been founded for the spread of truth and not, as will be stated by interested persons, either for the promotion of vivisection or for the glorification of the physiological laboratory. We wish to lay particular stress on the educational advantages which the public will enjoy by being able to obtain accurate information upon the work of medical research. While medical science is advancing by gigantic strides and annexing in every direction departments of learning which were in times quite recent definitely allocated to other sciences, the public intelligence has not been standing still. The public has vastly improved in general knowledge and recognition of this fact is now incumbent upon the medical profession. The half knowledge of scientific truths which so many now possess ought not to be exploited perpetually either by sentimentalists or agitators without an honest attempt being made by scientific men to explain the reasons for their faith and their actions. The Research Defence Society is already issuing pamphlets and leaflets upon different subjects, and will be a source from which accurate information can be drawn by lecturers, public speakers, and humanitarians. When this is found to be the case serious audiences will not be forthcoming who can be swayed by the clamours of the avowed enemies of medical science. The dark deeds of our medical schools, the ineptitudes of our medical men, and the futilities of accepted medical practice will continue to be dwelt upon by a certain class of lecturer for some time to come—indeed, the formation of the Research Defence Society will be the signal for an outburst of this kind of activity—but the audience will no longer be made up of intelligent units. The audience will be the credulous and the ill-informed, for the properly educated public will see where truth lies and it is the aim of the Research Defence Society to educate the public.

Art and Insanity.

FROM the day when MOREAU of Tours gave a new form to the trite aphorisms of our ancestors and affirmed in set scientific terms that genius was a neurosis, distinction in art or letters has been a recognised title to the attention of the pathologist. The intellectual and moral aberrations of men of genius have been the theme of many volumes, most of which appear to have been compiled from the evidence of that notoriously disillusioned person to whom no man is a hero. Sometimes, too, it has been possible to supplement the testimony of the valet with information gleaned from the great man's tailor or his hatter and so to ascertain, for instance, whether the laurel wreath of fame rests more often on an oxycephalic or on a scaphycephalic cranium. The result of these investigations, according to the enthusiasts who have pursued them, has been to establish quite conclusively the kinship of great wit not only to madness but also, and in even nearer degree, to epilepsy and to crime, and to prove that originality of thought, if not perhaps quite as dangerous socially, is fully as morbid and as indicative of "degeneracy" as any form of delinquency known to the law. This doctrine has been found very useful when it has been desired to attach the stigma of unhealthiness to literary or artistic work which shows any tendency to depart from traditional models, and it is with this application of it to modern writers and artists that we are most familiar. So useful, indeed, has it proved in this way to the advocates of conservative ideas in art that they have for the most part confined themselves to this use of it and have never imperilled their faith in the general soundness of their theory by pursuing the complementary line of inquiry and seeking for evidences of original talent in the art of the insane.

It may therefore be worth while commending to their notice and to the notice of all who are curious in these matters a small volume recently published by Dr. MARCEL RÉJA under the title of "L'Art chez les Fous."[1] In this very interesting contribution to a comparatively neglected subject Dr. RÉJA is mainly concerned with the efforts of the insane in literature and in design, while he touches only briefly on sculpture and makes no reference at all to music. This latter omission, we may note in passing, is somewhat significant, for it is due to the fact that it is extremely rare for the insane to seek in music an outlet for their morbid artistic activity—a fact which must be rather embarrassing for those who would have us believe that the great development of music in modern times is one of the morbid symptoms in contemporary art. Whatever be the explanation, it is certainly the case that the art of the lunatic asylum is practically confined to pictorial and literary expressions, being characterised in both by peculiarities of somewhat similar import. Of these peculiarities the most constant and distinctive is, curiously enough, not a spirit of licence and innovation but, on the contrary, a spirit of excessive traditionalism. In the pictorial art of the insane, for instance, the most characteristic feature is the resemblance to archaic art, and this, it may be remarked, is seen both in the work of lunatics who have received a technical training before the onset of their mental disease and in the work of insane amateurs. The mad painter, far from introducing startling innovations in technique or conception, is much more inclined to revert to primitive formulas. So far does this tendency go that the designs of the insane often reproduce the naive devices of the early masters, so that, for instance, as in primitive frescoes, the size of the personage will be made to correspond not to their place in the perspective but to the importance of their rôle in the dramatic action, or, again, several successive phases of the same action will be represented in the same picture. When not distinguished by a reversive tendency of this sort the works of insane painters, unless quite incoherent, are, as a rule, without any special characteristics at all; certainly they hardly ever reveal, even in the most rudimentary degree, any straining towards new horizons. And we find just the same lack of originality when we examine the literature of the asylum; and here, of course, we have more abundant material to deal with, literature being notoriously the favourite direction for the artistic energies of the lunatic. The most striking feature of insane literature, and one doubtless which may also be regarded as of reversive significance, is the predominance of poetry; relatively few lunatics, and, as a rule, those only whose mental integrity is but slightly impaired, make any attempt to produce work of literary pretensions in prose. This preference for the metrical form appears to be due in great part to what may be termed an orthopædic influence of verse on the invalid brain; verse supplies, as it were, a channel into which the incoherent stream of words and images can be poured, so that in the automatic activity of the disordered mind metre and rhyme act as substitutes for the processes of rational association. In the examples quoted by Dr. RÉJA the rhymed alexandrine is the most usual form of metre; in part, no doubt, the literary traditions of France might be expected to create a preference for this type of versification, but it is probable that the chief reason for the general use of this or of some other variety of rhymed couplet is to be found in the obvious advantages of such a simple metre as a means of giving rhythm to the insane logorrhœa, for the same pedestrian sort of verse is specially affected by asylum poets in other countries. If there is no novelty of technique to be discovered in the poetry of the mad-house, it is equally hard to discern in it any originality of conception; the characteristic of its matter is rather, indeed, a tendency to a dreary didacticism reminiscent of the late Mr. MARTIN TUPPER in his most platitudinous moments. Even in the very rare instances where verse of real distinction is written under the influence of insanity, this influence is shown chiefly in a too faithful observance of traditional formulas, which gives it at its best the appearance of a passable imitation of some accepted master of style.

The conclusion of the whole matter is, then, that, alike in literature and in painting, conventionality and traditionalism appear to be the distinguishing features of the work of the insane; so that if we are to deduce from the characteristics of that work our criterion of what is morbid in art we shall be more likely to discover

[1] L'Art chez les Fous: le Dessin, la Prose, la Poésie. Par Marcel Réja. Paris: Société du Mercure de France. 1908. Pp. 235. Price 3fr. 50c.

the signs of disease in the writers and the artists whose respectable conformity to outworn models endears them to the Philistine than in the revolutionary propagators of new ideas and new methods. At all events, the fact—for fact it assuredly is—that insanity is much more prone to produce in art what is commonplace than what is original may perhaps be borne in mind with advantage by those critics who are so ready to brand as morbid and decadent every artistic development which conflicts with conventional models.

Plague in India.

THE great Powers of the world may consider themselves fortunate in that none of them have had such a factor to face as that with which our own great dependency of India has been struggling now for 12 years. In 1896 plague was introduced into Bombay from Hong-Kong and from Bombay it has spread gradually to the other provinces of the country. The deaths have gradually risen; there were 1704 deaths in 1896, 56,056 deaths in 1897, 577,427 deaths in 1902, and 1,178,989 deaths in 1907. In all up to May, 1907, 5,402,245 deaths have been caused by this dire disease; and to show what this means we have only to remember that the total population in India is about 300,000,000, so that this mortality means about one death in every 60 inhabitants. It must be evident therefore at once that a pressing problem confronts India, for not only has the disease unfortunately of late years affected the territories of the peninsula whence we obtain our most valued recruits, but if left, as Professor W. J. R. SIMPSON so well points out, to take its own course, as it has been within recent years, it will become a danger to the world. That the problem of its suppression and extinction is not an easy one is at once evident when we take into account the peculiar environment present in India. We have here an essentially conservative people who are naturally prone to view with suspicion and aversion any new device sprung upon them. We have also a people imbued with a reverence for animal life, so that one of the chief methods of plague prevention—viz., the destruction of rats—is viewed with dislike. Of the modes of prevention hitherto employed some have been attended with scant success. In the articles on Sanitary Reform in India which have appeared lately in THE LANCET old history has been necessarily dealt with; the time is therefore appropriate to see where we stand now. Captain W. GLEN LISTON, I.M.S., member of the Plague Research Commission and acting director of the Bombay Bacteriological Laboratory, Parel, in December last delivered a most interesting lecture before the Bombay Sanitary Association on the cause and prevention of the spread of plague in India, and we have also to guide us the illuminating Croonian lectures of Professor SIMPSON, one of the greatest living authorities on plague, delivered before the Royal College of Physicians of London. Let us briefly examine the course of action recommended by these experts. Plague is essentially a rat disease as defined some three years ago by the first of the above writers. The Plague Research Commission, of which he was a member, has conclusively proved that rats are the chief source from which man acquires plague and has also afforded the strongest possible grounds for inferring that man becomes infected through the agency of rat fleas which previously to biting him have fed upon infected rats. This officer, in the lecture referred to, first showed how the association of rats with man was the cause of epidemic plague and how this association was dependent on the habits of rats and on the customs of the people. He divides rats into field rats and house rats, and then shows that the latter are of prime importance so far as man is concerned, and that, of these, the Mus rattus, from its remarkable domestication, is the most important plague-spreading rat, as was proved by the Plague Commission. The plague amongst Mus rattus precedes the plague amongst man by an interval of a week or a fortnight. Next the author proceeds to show how the habits of the people favour the multiplication of rats; how the structure of their houses affords shelter to rats; how, again, the mode of residence in these buildings brings about an association of rats with man, as exemplified, for instance, in the cases where baskets or open sacks of grain are often left uncovered at night in the shops so that the rats gain a ready access; again, the same event is brought about by the inhabitants storing up grain and grocers' materials in their ground and upper storeys. The very streets are habitually used as a depository for filth and refuse, and thus afford a food-supply for these animals; cows, goats, and hens kept in human dwellings attract them. The above environment will be found throughout India. The infected rat now transfers its infection by the rat flea to man.

Hence in the prevention of plague we have primarily to cope with the rat. That destruction of rats where thorough will accomplish this has been proved in many instances; we may mention, for example, the case of the Punjab; here in 1906 evidence was obtained from 18 centres of endemic plague; in 11 of these, where the destruction of rats was thoroughly carried out, there were no cases. In the first place, however, measures must be brought into play which aim at decreasing the food-supply and shelter afforded to these animals; regulations should be made preventing the erection of flimsy and ill-made buildings, and also insisting on the maintenance of the houses in a proper state of repair, for if not these houses will be found to afford shelter to rats. Dwellings must be kept free from grain stores, godowns, and stables; the public streets must not be used as depositories for food refuse; and tenants must be compelled to maintain their dwellings in a clean and tidy state by the health departments in the cities. Such measures will doubtless be difficult to enforce amongst the ignorant conservative people of India, but Captain LISTON wisely recommends their commencement in the larger towns where education is somewhat advanced. These being purged of the blemishes above described the villages will be directly benefited, for the cities are the great distributing centres of the disease. In the meantime the villagers should insist on a modified form of quarantine and should prevent those who have come from infected places entering their village until they have freed themselves from all fleas on their persons or kits. With this policy of the exclusion of rats must also be employed that of the destruction of rats, and a noteworthy method of accomplishing this is not by means of chemical poisons or by the dissemination of bacterial diseases amongst them, but by trapping them alive and then destroying them. Captain LISTON shows how in a certain village the rat population was reduced by this

method to one-quarter of the original number. In default of effecting any reduction in the number of rats present in a place the access of rats to man must be minimised by the latter vacating places where rats, and especially plague-sick rats, have been found. Evacuation should take place *immediately* after the rats have died. This measure, as it is pointed out, is efficient for preventing the development of plague amongst man, provided it is adopted early enough—that is, before or immediately after rats have been found dead in a house. But it is dangerous when it encourages those who have been living in the midst of infected surroundings to seek refuge in healthy towns and villages in order to avoid the discomfort of a camp life.

Lastly, and if we could only insure its universal application, the method of inoculation which has been brought to such a pitch of perfection by Mr. HAFFKINE is the surest means of prevention. Everywhere throughout India the results obtained, contrasted with control experiments, show this, and no greater benefactor to the Indian people has ever visited that country than this distinguished *savant;* even after five years some trace of protection remains. Testimony to its good effects is afforded not only by the communities inoculated but also by the police, the railway companies, and the mill-owners amongst other bodies. Captain LISTON concludes his admirable advice by showing that no single anti-plague measure should be adopted to the exclusion of others; each has its advantages. Where danger is imminent inoculation can best be practised; where it is wished to anticipate the possible epidemic in any village destruction of rats is most advantageously carried out. Evacuation is also a useful adjunct to inoculation. Evacuation and inoculation promptly carried out will stop any epidemic. Professor SIMPSON narrates a striking case occurring in Cape Town where plague was becoming serious amongst the Kaffirs. It having been decided to remove them from their insanitary dwellings some 7000 to 8000 were so removed and all were inoculated. The epidemic at once ceased. In conclusion, it may be mentioned that Professor SIMPSON strongly recommends the disinfection of a plague-stricken domicile by sulphurous acid gas by means of the Clayton method. This will destroy not only the plague germ but also rats, fleas, bugs, and other agents capable of conveying the infection, and, moreover, does away with the irritating procedure of removing all the different effects and chattels of the natives elsewhere for disinfection, as everything is thus dealt with *in situ*.

Annotations.

"Ne quid nimis."

THE NEW CABINET AND THE PUBLIC HEALTH.

WE have on several occasions recently discussed in our columns the status of the Local Government Board and we have pointed out the disabilities which attach to any offices other than those of Secretaries of State by virtue of the promotions which take place from time to time in any given Cabinet and which have often the effect of depriving some important Government department of the services of its president just as such president has had time to learn the work of the department. Probably no other department has suffered more from these Cabinet promotions in the past than the Local Government Board, and in a recent leading article in our columns we protested against the removal of Mr. Burns from that office at a time when he had introduced important public health measures into Parliament and when several others were likely to follow shortly. At the same time we did not for a moment suggest that Mr. Burns should forego any promotion to which his services have justly entitled him, and we suggested that his promotion should take the shape of an exaltation in status of the office which he now holds. We are therefore very pleased to see that events have justified our prophecy and that Mr. Burns is to remain at the Local Government Board to pilot through the House his important Housing Bill as also we trust, amongst others, measures relative to the better control of milk and meat and to the creation of river boards by means of which public health authorities may be better able to deal with the pollution of rivers, the purity of water-supplies, and, last but not least, to secure the wholesomeness of the numerous forms of shellfish which are consumed in such large quantities and often with such disastrous results to the consumers. The continued reign of Mr. Burns at the Local Government Board will afford him opportunities of redeeming his pledges to deputations in these respects, and for this reason we cordially congratulate him upon his re-appointment as also upon the fact that he has been given as a Parliamentary Secretary Mr. C. F. G. Masterman who takes great interest in natural science and in all schemes for the moral advancement of the people. We have yet to learn what are the precise proposals which the Prime Minister will present to the re-assembled Parliament relative to the status of the Local Government Board and the Board of Trade. We see, for instance, suggestions that the pay of each of these Ministers is to be raised to Secretary of State level but that they are not to enjoy the accompanying rank. We trust that no such invidious distinction will be made, as it seems clear from the recent debate which took place in the House of Commons on the subject that Mr. Asquith fully recognised the absurdity of the existing disparities in so far as the Local Government Board and the Board of Trade were concerned and that both sides of the House were in complete harmony on the subject. A department such as the Local Government Board, which deals with public health, pauperism, local expenditure, and a host of other matters affecting intimately the daily life of the whole population, should enjoy a status second to no other department of the State and we trust that full justice will at last be meted out to it.

A PLEA FOR THE PLATITUDE.

THE Glasgow Southern Medical Society has for its badge a clamant cockerel beneath the defiant motto "While I live I'll crow." We are happy to say that the society has carried out its purpose for 64 years already and has recently shown by a lusty note raised from the presidential chair that it is still animated by the spirit of its founders. The occasion to which we allude was an address delivered by Dr. James Mackenzie of Burnley under the title "Some Platitudes and the X Disease," in which he upheld with convincing vigour the claims upon the gratitude of Medicine which have been earned by the great body of her general practitioners, and the purpose of his address was to set forth the way in which it seemed to him the continuance of those claims might be assured. He brought forward his advice under three headings, to which he made deprecating allusion as "Platitudes of Medicine." A certain standard dictionary gives us three meanings for platitude: (1) a written or spoken statement that is flat, dull, or commonplace; (2) an insipid truism, especially when

uttered didactically; and (3) twaddle; whilst Dr. Mackenzie's own definition was "a statement of ignored trifles or things taken for granted." We can certainly acquit his platitudes of having any part in the dictionary's final alternative, and if we accept the other two definitions in this special connexion, truth, no less than courtesy, demands the deletion of their contemptuous adjectives. Combining, then, our modified authority with the meaning which Dr. Mackenzie himself gives to a platitude, we may define it as "a statement which is so true as to be obvious, dealing with things so commonplace as to be taken for granted and which have consequently come to be ignored as trifles." We submit that this meaning puts a different complexion upon the despised platitude, and even though we allow our dictionary to add that it is "uttered didactically," may not such formal delivery invest its lesson with a force lacking in casual utterance? We are prepared to justify our defence of platitudes by quoting the three on which Dr. Mackenzie based the paper in question: "Carefully observe your patient and understand what you see." "Treat the patient and not the disease." "Observe what becomes of your patients." How often has young Laertes, M.B., freshly "capped and doctored and a'," listened to such platitudinous counsels from the tedious lips of Dr. Polonius, his professional father! Oh yes, he's heard all that a hundred times and only wants to be spurring on his way. And yet, if he ponder upon this trilogy of truisms (of which, by the way, the third deserves more attention than it generally receives), he may fuse them into a golden rule for the practice of medicine, a very compendium of its science and art. It is, as Poe insisted, the name writ largest on the map which we fail to find, the obvious which escapes our attention, and it is well to be now and again formally reminded of the importance of the commonplace principles upon which experience shows we may best conduct the business of our lives. And a platitude has this great claim to respect, that granted it embraces a truism, *a fortiori* it contains a truth, and in the practice of medicine the establishment of an unassailable fact raises a new rock of safety out of a shifting quicksand. The man who can find nothing but tedium in the contemplation of such platitudes as we have quoted, if asked his candid opinion of Newton's statement of the laws of motion, would not improbably confess that to his intelligence they appeared a somewhat pedantic expression of obvious natural phenomena, in fact, mere dynamical platitudes. It would never occur to this superior person that had the philosopher not embodied his observations in convenient formulæ the knowledge of these phenomena would not have been his own birthright. And so it is with the platitude, for which, in place of the dictionary's scornful utterance, we now venture the more respectful and handier definition of "crystallised experience."

URBAN MORTALITY IN IRELAND.

THE recently published yearly summary of the weekly returns issued by the Registrar-General for Ireland during last year records a rate of urban mortality in that part of the United Kingdom in marked excess of the rate that prevailed during the same period in the principal urban population of England and Wales. In the 76 large English towns, each having an estimated population exceeding 50,000, the mean rate of mortality during last year did not exceed 15·4 per 1000, while in London, with a population little short of 5,000,000, the unprecedentedly low death-rate of 14·6 per 1000 prevailed. The return referred to contains statistics relating to 22 town districts of Ireland, with an aggregate estimated population of little more than 1,000,000; and the population of the individual town districts ranged from 300,850 in Dublin city and 370,163 in Belfast, to 7909 in Queenstown and 7588 in Armagh. Indeed the population of but three of the Irish towns exceeded 50,000, while in each of 16 of the 22 town districts the population was considerably below 20,000. Notwithstanding, however, the inclusion of so many small towns in the Irish list the mean rate of mortality in the 22 town districts during last year was equal to 21·1 per 1000, exceeding the rate in the 76 far larger English towns by no less than 5·7 per 1000; thus the rate of mortality in the Irish urban population exceeded that in the principal urban population of England and Wales by 37 per cent. The contrast between the London and Dublin death-rates was still more startling. The recorded rate of mortality in the Administrative County of London during last year did not exceed, as is stated above, 14·6 per 1000; whereas in the Dublin registration area the death-rate was equal to 24·2, thus exceeding the London rate by 9·6 per 1000, and by no less than 66 per cent. Moreover, this excessive death-rate in Dublin was 1·1 per 1000 below the average rate during the ten preceding years. It is also worthy of note that the death-rate last year was equal to 21·3 per 1000 in Belfast, and that among the smaller Irish towns it exceeded 20 per 1000 in Cork, Galway, Kilkenny, Newtownards, and Waterford. These high rates of mortality in the Irish towns can only reflect the defective health condition of the urban population which calls for careful investigation. It is only possible here to note one or two facts disclosed by this summary of the Irish weekly returns. In the first place, it is clear that the excessive rate of mortality in the Irish towns is not due to exceptional fatality of epidemic disease, as the rate of mortality during last year from the seven principal epidemic diseases was identically the same—namely, 1·6 per 1000, both in the 76 English towns and in the 22 Irish town districts. It is true that the rate of infant mortality, which did not exceed 127 per 1000 births during last year in the English towns, was equal to 135 per 1000 in the Irish towns; this excess of infant mortality, however, accounts for but a small proportion of the excess in the crude death-rate in the urban population of Ireland. As the birth-rate last year in the Irish towns was equal to 28·4 per 1000, against 27·0 in the English towns, it is improbable that the excess of mortality in the former is due to any very exceptional age constitution of the population, but it may be pointed out that while the proportion of deaths of persons aged upwards of 60 years to total deaths did not exceed 26·5 per cent. in the Irish towns, it was equal to 29·2 per cent. in the large English towns. These figures appear to suggest that the main excess of mortality in the Irish towns occurs among adults aged between 20 and 60 years. The true explanation, however, of this excessive mortality is not disclosed by the Irish Annual Summary under notice, and could only be ascertained by a full and careful analysis of more detailed statistics of the mortality in this Irish urban population, at various groups of ages and with due regard to its sex and age constitution.

THE EXISTENCE OF FORMS OF THE TUBERCLE BACILLUS WHICH ARE NOT ACID-FAST.

THE existence of forms of the tubercle bacillus which become decolourised in the course of the ordinary Ziehl-Nielsen method of staining is affirmed by Dr. Hans Much of Hamburg, in an interesting paper published in the *Berliner Klinische Wochenschrift* of April 6th. He has found that on making post-mortem examinations of cattle infected with tubercle bacilli of known origin and of ordinary characters, and presenting typical nodules in the lungs, the most careful examination may in certain cases fail to reveal ordinary acid-fast tubercle bacilli, in spite of the fact that inoculation experiments may demonstrate the tuberculous nature of the lesions and that from some of the cases tubercle bacilli may be obtained by culture. Similar results may be observed with

the so-called "cold abscesses" resulting from the tuberculous process in the human subject. Dr. Much, by using Gram's method as well as the Ziehl-Nielsen, found that there were two forms of the tubercle bacillus which were not acid-fast—one a rod-shaped form which is partly granular and the other a granular form consisting of granules lying singly or clustered into irregular groups. To demonstrate these forms he employs Gram's method, leaving the preparations in the gentian-violet solution for 48 hours before decolourisation. If sections of tuberculous tissues from which no ordinary bacilli were obtained were stained in this manner they sometimes showed large numbers of fine rods in some of the tubercles, often lying in the cells, while in other cases only fine granules lying partly in rows, partly irregularly, were to be seen. Small pieces of fresh lung tissue from such a case (free from other organisms) were incubated for varying periods in serum tubes placed in an incubator at 37° C. At first only granules and rods staining by Gram's method were obtained, but after incubating for six days bacilli staining by Ziehl-Nielsen's method were also recognisable. The granules were not artefacts due to precipitated stain, since they were only found in the tubercles, and no irregular precipitation was observed elsewhere. Other experiments are described showing that under various conditions the ordinary form can be converted into a granular form and yet retain its virulence. Dr. Much, in a paper on the same subject published in the *Beiträge zur Klinik der Tuberculose*, Band VIII., Heft 1, p. 85, gives his methods and his results in more detail. He suggests that the Ziehl-Nielsen staining depends upon some other constituent of the bacillus than that upon which the Gram method rests. In a paper in the same number of that journal by Dr. N. A. Michaelides similar conclusions are arrived at. He also states that there is a form of the tubercle bacillus which does not stain either with Ziehl-Nielsen or with Gram, but which can be demonstrated by the Lœffler-Giemsa method of staining, details of which he gives. These observations are of considerable interest and may prove to be of practical importance in diagnosis.

THE PERADVENTURES OF AN INDIAN LIFE-TABLE.

Sir J. Athelstane Baines, C.S.I., on April 14th read before the Royal Statistical Society a paper with the above title, which was the evident product of much careful study. The ingenious generalisations by which he sought to reduce to order the erratic returns which are alone available for the construction of Indian life-tables could receive proper appreciation from those engaged in actuarial work alone, but the paper contained much information of value to all who are interested in India's welfare. The "peradventures" of which he treated are of double origin, the untrustworthiness of all age returns made by an ignorant people to whom a registration system is still strange, and the incidence of famine which, by the interruptions of regular age-sequence caused by a lowered birth-rate, leaves its mark on the life returns of the whole generation which follows its devastations. In the great drought of 1896–97, for instance, an area of 276,000 square miles, supporting 52,000,000 of people, was famine-stricken, and the same fate befell 489,000 square miles and 58,000,000 of people in 1899–1900. The Census Commissioner estimated the actual loss of life on these occasions at more than 5,000,000. On the other hand, a bumper harvest is sure to be followed by an abnormally high birth-rate, so that the statistical record of the population is from famine alone subject to double disturbing influences. We are surprised that Sir Athelstane Baines made no reference to plague which, taking as it does its toll of millions of lives, must surely affect the birth-rate of its centres of activity in a ratio too inconstant to be predetermined. In dealing with incorrect returns of age, and setting aside the fallacies caused by wilful misrepresentation, the lecturer pointed out a source of glaring error (which occurs in the census returns of other illiterate nations), namely, the overwhelming preponderance of persons stating their ages in multiples of five. Thus, 54 per cent. of people returned their ages as one of the first 15 multiples of five, whilst there were only 46 per cent. who chose the remaining 56 figures open to them as the measure of their years; in every decade the 5 and 10 receive an undue number of claims. The only exception is the year 12, which was claimed for a disproportionately large number of children, 12 being nearly universally regarded as a lucky number; on the other hand, the nines in each decade are markedly avoided from superstitious reasons. A very general overstatement of age in advanced life was found and Sir Athelstane Baines went so far as to say that unless the age could be approximately fixed by some impressive event a margin of 25 or even 30 years could be safely allowed in dealing with the alleged centenarians of India. Another very difficult factor to reckon with is the unduly large proportion of young children in the community, resulting from almost universal marriage amongst adults. The paper described a highly technical method of smoothing out the many rough places in the preparation of Indian life-tables, a work in which Sir Athelstane Baines attributed an honourable share to Mr. S. F. Hardy. This paper is sufficient proof of his own fruitful labour in the same field. Amongst the many formidable tables which illustrated his remarks was one showing the unadjusted return of annual periods concerning which the lecturer quoted the phrase of a Calcutta biographer which has become classical in India, that it "exposes its *cui bono* in all its hideous nudity"!

THE CONGENITAL PIGMENTATION OF MONGOLIANS.

THE subject of the congenital pigment spots or birth marks in Mongolians, to which Mr. Edward P. Leavy has drawn attention in another column, has been studied and discussed by Japanese physicians and accoucheurs for over 150 years. Almost all Japanese infants present at, or soon after, birth one or more blue-looking spots in the lumbo-sacro-gluteal region. The centre is of a bluish-black colour and the peripheral area is lighter in appearance. The spots vary in size from that of a pea to a hand's breadth and may sometimes be found scattered over the back and on the extensor surface of the extremities. They usually disappear during the first five years of life but may persist until puberty, or more exceptionally throughout life. A typical example of the condition was shown at the Clinical Society of London in 1905,[1] the subject being a Japanese baby aged ten months. Dr. Adachi of Japan has fully discussed the question of this pigmentation in man and apes in a paper published in 1903.[2] Monkeys possess pigment cells scattered generally and superficially over all parts of the body. The coloured races, for the Mongols are not alone in this peculiar pigmentation, show larger pigment cells lying in the corium and distributed in the special areas referred to above. In the white races these pigment spots are microscopic in appearance and for the most part non-existent. Dr. Ashmead believes that the spots are evidence of a negroid parentage. The fact that they are present as a rule only during embryonic or early life would suggest that they now represent merely an earlier stage of evolution when the condition was more persistent and possibly served some function. It is of special interest to observe that some Japanese physicians have discovered this typical pigmentation amongst pure German infants, while in this country

[1] THE LANCET, Nov. 4th, 1905, p. 1331.
[2] Zeitschrift für Morphologie und Anthropologie, 1903, Band vi.

Mr. Arthur Edmunds showed at a meeting of the Society for the Study of Disease in Children [3] an English baby with similar pigmentation in the sacro-iliac region. The occurrence of the so-called Mongolian pigmentation in European infants may therefore be accepted as a fact, but the condition would appear to be one of great rarity.

AN "ACADEMIC PROLETARIAT."

"THE phrase" (writes an Italian correspondent) "is Guido Baccelli's who, when Minister of Public Instruction, coined it in order to give currency to an impression, borne in upon himself and his predecessors in office, as to the evil wrought by Italy's plethora of universities which turn out annually many hundreds of graduates in law, in medicine, and in engineering, of whom scarcely one half can expect to gain a livelihood by their nominal profession. What becomes of this great army of the educated unemployed? Disdaining to go into commercial or industrial pursuits, for which indeed they have scarcely more aptitude than training, they reinforce the already swollen ranks of journalism mainly political or of parliamentary 'agitation,' mainly demagogic. Hangers-on of this or that political group, they court the patronage of its chief by services on the platform or the press, contributing to journals which crop up like mushrooms, often as deciduous as they are unwholesome, or strutting their little hour on public platforms and diffusing the malady, of which they are alternately the cause and the effect, known to continental alienists as 'mania contionabunda.' All this was put before parliament in Italy some nine or ten years ago by Dr. Baccelli in the memorable speech in which he advocated the reduction of Italy's multitude of seats of learning to a minimum of four which, duly endowed and equipped, would be beyond the temptation of competing with each other in the matter of matriculation, curriculum, and graduation, and by making their degrees attainable only by earnest and competent aspirants would bring down the total of graduates to a number corresponding to public wants and so cut at the roots of the upas tree—'the academic proletariat' aforesaid. Unfortunately, the administration in which Baccelli was charged with the portfolio of Public Instruction collapsed before his Bill for University Reform could pass through its preliminary stages, and so the mischief wrought by the plethora of 'seats of learning' remains as active as ever—to the prejudice alike of professional efficiency and of public well-being. In fact, the University curriculum would seem often to be accepted by the undergraduate less as a preparation for the legal or the medical calling than for the career of the 'publicist,' if we may judge from the proneness of the student to intervene in the politics of the hour, domestic or international. Messages of sympathy, voted by undergraduates 'in council assembled' (which is often but a turbulent meeting in the quadrangle), are despatched to this or that 'cause,' native or foreign, which happens to be in conflict with the central authority; sides are taken with a fervour and a vehemence redolent of the parliamentary arena rather than of the 'Groves of Academe'; and many a youth who might have made a respectable citizen as practitioner in law or medicine is seduced by the success of his harangue and the triumph of his 'side' to pose ere long as a little Gracchus hungry for 'place,' or (let us say) as a 'Gracchulus esuriens' in the parliamentary lobbies. Aping the methods of the industrial proletariat, as these are dictated by the professional agitator, the undergraduate here goes out on 'strike' and just the other day we had all over Italy outbreaks of the 'sciopero accademico' on the part of students who wanted their own way in the matter of examinations or who bore a grudge against this or that professor. Interrupting not merely their own studies but those of their class-fellows from whom they exact 'solidarity' or action in common, they convert the curriculum of the year into little more than a farce, so that failing (naturally enough) to meet the examination test in their own university they are fain to court that of another more accommodating. All this, as seen and deplored by successive Ministers of Public Instruction but never put so powerfully in evidence as by Italy's prominent clinician and senator Guido Baccelli, calls loudly for remedial legislation, beginning with the suppression of at least three-fourths of the existing universities and the absorption of the resources of these into the four, as proposed by Baccelli, which would encourage real learning and exclude all but the duly qualified from the professions. True, the reform indicated is fraught with difficulties. Just as in the matter of the civil list the King is periodically importuned in Parliament to suppress the many palaces inherited from the deposed dukes, grand dukes, and tiny monarchs who disappeared with Italian unity, but has always to declare his inability to do so from the local protests raised by the communities in which the said palaces are cherished as an heirloom and an asset, so in the case of the universities which, equally with the palaces, are retained long after the duchy or the kingdom to which they belonged has ceased to exist, the reformer who proposes to extinguish them so as to concentrate their lights and to feed a larger and more illuminating flame is met by an outcry from the 'seat of learning' and its neighbourhood which forces him to desist, under a pressure aided and abetted by Parliamentarians who, radical in other questions, become conservatives indeed when their local interests are threatened. And yet something must be done, and that right early and right thoroughly, if Italy is to rise to the height from which she has declined since the Renaissance and make her universities the true 'Almae Matres' or 'nursing mothers' which they once were, not only to herself but to the outlying world. Then, but not till then, shall we witness the disappearance of 'academic strikes' and 'quadrangular duels' between professoriate and *Burschenschaft* and with it the deflection of undergraduate energies into their normal and fertilising channels—to the revival of Italy's fair fame in the sphere of research and practice and to the extirpation of that malignant fungus now poisoning her public life—the Academic Proletariat."

[3] THE LANCET, Feb. 3rd, 1906, p. 299.

VACCINIA AND VARIOLA.[1]

THE Association of Public Vaccinators of England and Wales has done well to publish Dr. De Korte's paper read at its annual meeting last October. The paper constitutes a most useful addition to the easily accessible literature on the subject. It differs from most writings in defence of vaccination in respect that it touches only slightly on the statistical evidence and confines itself almost wholly to a historical and scientific study of the vaccinal process and to the nature of the immunity conferred. The statistical evidence that vaccination prevents small-pox is so overwhelmingly strong and has been so frequently set forth that there was no need for its repetition, but the bacteriology of vaccinia and variola has been seldom dealt with excepting in larger works. Dr. De Korte discusses the principle of Jennerian vaccination and refers to the experiments of Simpson and King and others as to the relationship of cow-pox to small-pox. He discusses also the cause of ulceration in Jenner's day and the side-chain theory and alexocyte theories of immunity, the histological changes in variola and vaccinia, umbilication and

[1] Vaccination Scientifically Considered, by W. B. De Korte, M.B. Lond. Published by the Association of Public Vaccinators of England and Wales. Price 6*d*.

repair, and the etiological agent of small-pox and vaccinia. He brings well up to date the present knowledge on the subject, referring to the bipolar bacillus of Klein and Copeman, the cytoryctes variolæ of Guarnieri, and the sporidium vaccinale of Funk. Dr. De Korte himself has done some original work on the same lines and is well qualified to set forth the present position of investigation. His brochure will be found very useful by students of the subject.

EARLY SITTING UP AND RISING AFTER LAPAROTOMY.

IN the *Albany Medical Annals* for February Dr. George Chandler has advocated the sitting up and rising after laparotomy at a much earlier time than is customary. He adopted this treatment independently, but subsequently found that it had been followed previously by Dr. Herman Boldt of New York and that Dr. Emil Ries of Chicago appeared to have been its pioneer. The following case suggested the treatment to Dr. Chandler. He operated on a man for acute appendicitis in the country under most unfavourable conditions. On going to see the patient next day he was astonished to find him standing at the window shaving himself. He refused to go to bed, went about fully clothed as if nothing had happened, and, to Dr. Chandler's surprise, made an excellent recovery. When Dr. Chandler was house surgeon at St. Vincent's Hospital, New York, 12 years previously patients were kept in bed for four weeks after laparotomy by Lusk, Bryant, and others. During the five years he was connected with the hospital this period dwindled down to two weeks. Then Morris adopted ten days and others even a shorter time. About two and a half years ago Dr. Chandler in a few selected cases had his patients propped up on the second day and sitting on a chair on the fifth day with good results. He now adopts the following method. All the patients, no matter what the lesion or how weak they are, recover from the ether in the sitting posture, in which they are supported by a bed-rest. The result is that they have very little nausea. He keeps them in this position for 12 hours and then allows them to lie down and to assume any position that is comfortable. After they have rested they are encouraged to sit up again with the bed-rest for almost the whole of the next 24 hours. On the third day, if they are strong, and on the fourth, in any case, they are sitting on a chair. Some walk on the fourth day; all do so on the fifth. Subsequently they walk about or sit with their clothes on during the day until they leave the hospital, which they usually do from the tenth to the fourteenth day, well and strong. Dr. Chandler's experience of this method includes about 200 laparotomies and that of other American surgeons over 800. The results have been most gratifying. After closing the abdominal wound Dr. Chandler applies a single broad bandage of zinc oxide plaster extending from just above the pubes to the umbilicus. As regards internal treatment, the patients are given sips of water or bits of ice after the first 12 hours. If there is little flatulence and no gastric or intestinal symptoms are present they are allowed on the second day sterile water, orange juice, and weak coffee or tea, but no milk. The bowels are moved on the third day by divided doses of calomel, followed by a saline. Stimulants are never given, however weak the patients, but if necessary during the first two days they are made comfortable with hypodermic injections of morphine. If the patient's condition is grave, salines are given by the rectum or subcutaneously and the stomach is washed out. After the bowels have acted on the third day a light diet is given and by the fifth day a full diet. If there is acute general peritonitis a large fenestrated rubber tube is inserted deeply into the pelvis through a median incision. A wick of gauze is passed through this and extends from the bottom of the cavity to the gauze outside the abdomen. The patient is placed in a perfectly upright position in the bed, not merely elevating the head and shoulders but also the pelvis. Drainage of the abdomen will take place by gravitation alone during the first 12 or 24 hours, never longer, therefore the importance of posture at the beginning is great. By securing the most upright position possible infectious material will gravitate into the pelvis, where it can be reached later through the rectum or vagina. After the patient is properly placed in bed saline solution is given by the rectum according to Murphy's method. The advantages claimed for the early sitting up of patients are that it prevents phlebitis, that the patient is not weakened by enforced rest, that recoveries are better, that hernia is less frequent, that vomiting is prevented, and that convalescence is shortened.

THE GREAT ORMOND-STREET HOSPITAL FOR SICK CHILDREN.

THE summer session of lectures and demonstrations, which are free to all duly qualified medical practitioners, will commence on May 7th, when Dr. A. E. Garrod will lecture on Infantile Scurvy. On May 14th Mr. H. Stansfield Collier will give a practical demonstration of some minor operations in children. The lectures and demonstrations will be given every Thursday at the Hospital for Sick Children, Great Ormond-street, London, W.C., and will commence at 4 P.M. A list of subjects and lecturers will be published in our columns week by week.

HÆMATEMESIS IN APPENDICITIS.

HÆMATEMESIS has been described in appendicitis by several French writers but appears to have been almost unnoticed in this country. In his "Cliniques de l'Hôtel Dieu," 1901–02, Professor Dieulafoy devoted a lecture to "Vomito Negro Appendiculaire," in which he reported cases of appendicitis accompanied by abundant hæmatemesis, sometimes so severe that blood entered the air passages and suffocated the patient. All the cases were serious and many of them were fatal. As there were often also jaundice and oliguria, recalling the symptoms of yellow fever ("vomito negro"), he used the designation given above. He regarded the hæmatemesis as a manifestation of general infection or intoxication which lead to the production of small gastric ulcers. In the *Gazette Hebdomadaire des Sciences Médicales de Bordeaux* of March 8th Dr. J. Duvergey has described, under the title of "Les Petites Hématémèses de l'Appendicite," a form of hæmatemesis in appendicitis in which the hæmorrhage is slight and not of serious significance. He relates two cases. In the first case he was called in consultation on Nov. 13th, 1905, to a man, aged 52 years, who had always enjoyed good health. On the evening of the 10th he began to feel abdominal pains, which on the 11th became localised to the right side. On the 13th the pain was increased and he vomited twice. The pulse was 90 and the temperature was 100·2° F. The abdomen was not distended and there was no cutaneous hyperæsthesia. On the right side the abdominal muscles were rigid and McBurney's point was tender. The vomit consisted of a slightly brownish liquid mixed with a little mucus, in which floated blackish filaments. Here and there and settled on the bottom were masses like coffee-grounds. Microscopic examination of the vomit showed red blood corpuscles for the most part deformed. Dr. Duvergey recommended expectant treatment but knowing the gravity of hæmatemesis in appendicitis he was prepared to operate on the slightest indication. The hæmatemesis ceased and recovery took place in about eight days. On Dec. 26th he removed the appendix which was long, swollen at its extremity, and surrounded by adhesions. In the second case, a youth, aged 19 years, was seized on the night of July 31st, 1907, with violent colic all over the

abdomen, but especially on the right side. On August 1st the pain increased and on the 2nd he was seen by Dr. Duvergey. The pulse was 120, the temperature was 103·2°, and there were muscular rigidity particularly in the right iliac region and tenderness greatest at McBurney's point, where a hard mass was beginning to appear. The condition became worse and on the 7th vomiting of the same character as in the preceding case occurred. Operation revealed a fœtid retro-cæcal abscess which was drained. Recovery ensued. These cases show that appendicitis may be accompanied by the vomiting of liquid containing blood in such small quantity that on superficial examination it may be unnoticed, particularly if the microscope is not used. Dr. Duvergey ascribes the hæmorrhage to ulceration of the gastric mucous membrane from the interference with its nutrition produced by small emboli brought to it from a focus of infection. Hæmatemesis in appendicitis denotes a more or less profound infection of the body and increases the gravity of the prognosis but slight hæmatemesis is not of such serious significance as severe hæmatemesis. Seven out of nine cases of the latter reported by Professor Dieulafoy proved fatal. On the other hand, in the first case of slight hæmatemesis related above the course was benign.

DIPHTHERIA IN ELEMENTARY SCHOOLS.

AN interesting paper on this subject was read at the recent meeting of the Royal Sanitary Institute at Hull by Dr. J. Wright Mason, medical officer of health of the City and Port of Kingston-upon-Hull. After a reference to some points in the bacteriology of the disease Dr. Mason drew attention to the observations of Dr. D. S. Davies who noted that at one time in the same town the type of the pathogenic bacillus may be distinctly different from that found at another time, and that the differences of type are accompanied by different characteristics of the disease both as to fatality and infectivity. This same variation occurs with some of the other infectious diseases and is difficult to explain but is important to remember in estimating the value of new therapeutic measures. Dr. Mason also mentioned that "common cold and sore-throat" are often the precursor of outbreaks of diphtheria in schools, and consequently rightly urged that when a case of diphtheria is recognised all proper measures for isolation and quarantine should be at once adopted. Recent bacteriological investigation has confirmed the suspicion long entertained that children may act as "carriers" of infection without themselves presenting symptoms of diphtheria; consequently Dr. Mason emphasises the importance that when a child attending school is found to be affected with the disease a medical inspection should follow of the family and other children of the class or school. Swabs should be taken from their throats for bacteriological examination and in cases where diphtheria bacilli are shown to be present such children should be excluded from school and should not be allowed to return until they have been declared by bacteriological examination to be free from infection. Dr. Mason further insisted that during epidemic periods there should be frequent medical inspection of the schools and that infected "contacts" and those who have been exposed to infection should be injected with a prophylactic dose of antitoxin. The protection afforded by such treatment lasts about three weeks and if the throat is not clean at the expiration of that time Dr. Mason advises that the dose should be repeated. He also reminded his hearers that another point should not be overlooked with regard to diphtheria—namely, that discharges from mucous membranes are exceedingly prone to recur, and that after a patient has been declared to be convalescent the discharge on exposure of the individual may recur and become a possible source of infection. The various points to which attention were drawn by Dr. Mason are generally known and accepted, but they cannot be too frequently brought before the notice of the sanitary authorities, so that every precaution available to modern science can be utilised when necessary.

A CASE OF HODGKIN'S DISEASE WITH GENERAL EOSINOPHILIA.

A CASE of some interest is described by Dr. O. H. Perry Pepper in the *Bulletin of the Ayer Clinical Laboratory of the Pennsylvania Hospital*, No. 4, December, 1907. The patient was a woman, 50 years of age, an Austrian by birth, and was admitted into the Pennsylvania Hospital on June 22nd, 1907, under the care of Dr. Morris J. Lewis. In February, 1907, she began to lose appetite and to suffer from vomiting and abdominal pain. She lost flesh and her abdomen became distended. The superficial lymphatic glands were found to be enlarged, including the epitrochlear, axillary, supraclavicular, cervical and parotid glands, some of them being as large as pigeon's eggs. The spleen extended downwards and forwards three inches below the costal margin in the mid-clavicular line. It was smooth and was not tender on palpation. The liver was found to extend from the fourth interspace to two and one-eighth inches below the costal margin in the parasternal line. There was slight pre-tibial œdema and a papular eruption was found on the body due to pediculosis. During the patient's stay in hospital she suffered from an intermittent febrile temperature reaching up to 102° F. For some days after admission she appeared to grow worse, the glands and spleen enlarged, and a deep-seated mass of indefinite outline was felt in the left side of the abdomen. Shortly afterwards she improved but left the hospital against advice on July 22nd. During her stay in the hospital the blood was examined four times. On admission there were 3,960,000 erythrocytes and 21,500 leucocytes per cubic millimetre. A differential count showed 77·6 per cent. polymorphonuclears, 4 per cent. lymphocytes, 4·8 per cent. large mononuclears, and 11·6 eosinophiles, i.e., an absolute count of 2494 eosinophiles per cubic millimetre. The percentage of hæmoglobin was 59. On a subsequent count the number was 4608 eosinophiles per cubic millimetre, a percentage of 16 of the total leucocytes. A further count made shortly before the patient left the hospital gave 3,800,000 erythrocytes and 16,160 leucocytes, the differential count being 46 per cent. polymorphonuclears, 40 per cent. lymphocytes, and 8·8 per cent. eosinophiles. The fæces were searched for ova of parasites but none were found. The sputum was examined for tubercle bacilli with negative result and no cause could be found for the eosinophilia. Another noticeable feature in the blood was the increasing numbers of lymphocytes which is said to be a feature of Hodgkin's disease. The diagnosis was confirmed by removal of a gland from the axilla for microscopical examination which was carried out by Dr. Longcope who obtained results typical of the cellular form of Hodgkin's disease. The normal structure of the gland was lost; it was made up of a fairly delicate reticular meshwork through which ran great numbers of small blood-vessels. The meshwork contained cells of many different types mixed together without definite arrangement. There were small mononuclear cells, epithelioid cells many of which showed karyokinetic figures, a few mononuclear giant cells and enormous numbers of eosinophilic cells, most of them being multinuclear. A few plasma cells were also seen. Goldmann and Kanter so long ago as 1894 described the presence of eosinophiles in the lymph glands in Hodgkin's disease and their observations have been abundantly confirmed, but it is only recently that general eosinophilia has been observed in that disease. Dr. Pepper after examining the reports of 19 other cases

of Hodgkin's disease seen at the Pennsylvania Hospital found that a decided eosinophilia had been observed in three of them, 13·2 per cent. in one, 8·8 in another, and 10·6 in the third. The explanation offered is that the eosinophiles are formed in excess in the bone marrow and that they are on their way to be deposited in the glands affected by the lymphadenomatous process.

SCANDINAVIA AS A WINTER HEALTH RESORT.

THE series of articles on Scandinavian Winter Health Stations, being the report of our Special Commissioner, which we commence in another column, are of special interest at the present moment by reason of the visits which the King and Queen are now making to the Courts of Denmark, Sweden, and Norway. At present their Majesties are in Copenhagen. Naturally all British subjects are interested in the countries where the King and Queen may be sojourning, while medical men who have patients likely to receive benefit from a visit to these northern European health resorts will welcome a series of articles on the subject thus early in the year because their patients will have plenty of time to become acquainted with the necessary information and will be able to make their arrangements without undue hurry. The present instalment deals in a general way with the subject of Scandinavia as a health resort and points out the best routes by which to travel as well as giving information regarding the climate and the conditions of life. In subsequent articles it is proposed to deal in detail with some of the more important health stations.

BIRTHS AND DEATHS IN THE PRINCIPAL TOWNS OF EGYPT.

IN Egypt, as far as the native portion of the population is concerned, the birth- and death-rates are both exceptionally high. This has long been recognised but until 1897—when at last a trustworthy census was taken—there was no real foundation for the belief. It is true that in 1882 a so-called *Recensement* was produced but owing to the Arabi disturbance and other causes it was no better than an imperfect estimation. From a return recently issued by the Department of Public Health we learn that the indigenous birth- and death-rates during the year 1907 in 20 of the principal towns of Egypt, and containing in the aggregate a population of 1,530,672, were respectively 43·7 and 36·7 per 1000; the highest birth-rates having been 62·0 at Benha and the lowest 33·9 at Keneh, while the highest death-rate was 47·5 at Fayum and the lowest 23·3 at Damietta. In this connexion it is of interest to note that the last-named town still easily retains its pride of place as the healthiest town in Egypt, the cause of its exceptional salubrity, as was long since pointed out in these pages and elsewhere, being the comparative purity of the water-supply during the low-Nile season, when the bed of the river is little better than an open sewer. Among foreigners, of whom 104,051 were distributed through the 20 towns in numbers varying from 75 at Guizeh to 35,219 at Cairo and 46,118 at Alexandria, the rates were as follows: Births (no record); deaths, highest 153·8 at Assuan, lowest 10·2 at Damanhour; the average death-rate for the 20 towns having been 24·4 per 1000. Among natives the principal causes of mortality were as follows, the figures representing the percentage borne by the disease mentioned to the total number of deaths: dysentery and diarrhœa, 26·2; congenital debility, 10·0; senile debility, 6·3; tuberculosis, 4·8; measles, 4·1; violence, 2·7; malaria, 0·4; plague, 0·3; cholera, *nil*; and "all other diseases," 38·8. The chief causes of death amongst the foreign population were as follows: dysentery and diarrhœa, 17·5; tuberculosis, 7·7; violence, 3·7; typhoid fever, 3·0; small-pox, 2·9; congenital debility, 2·8; senile debility, 2·6; plague, 1·1; other infectious diseases, 7·44; and "all other diseases," 51·3. The total number of deaths due to violence among the natives was 1496; of these 1318 are ascribed to accident, 14 to execution, 151 to homicide, and 13 to suicide. Among the foreigners the total number of violent deaths was 94, accident being responsible for 61, homicide for 15, and suicide for 18. The last table in this useful return refers to the incidence of infectious disease throughout the entire country. It gives the number of cases and deaths that occurred during the twelvemonth under no fewer than 23 heads inclusive of Malta fever, leprosy, meningitis, anthrax, and rabies, the grand total being—cases 11,907 and deaths 9792. Measles and small-pox were by far the most deadly affections that were notified. The first caused 5790 cases and 5456 deaths and the second 2130 cases and 573 deaths.

SIR HENRY CAMPBELL-BANNERMAN.

ALL classes of society and all political parties are alike in sincerely mourning the death of Sir Henry Campbell-Bannerman. To medical men it has long been apparent that the chances of the distinguished patient making effective resistance to his malady were not very good; but if his vitality, under assiduous medical care, had proved equal to his being moved to a more suitable environment, he might have gained a further lease of life. The cardiac weakness, so seriously indicated last autumn, proved, however, a bar to all remedial measures and the patient passed peacefully away in a condition of unconsciousness. It is no exaggeration to say that he died a martyr to duty, for in his physical condition, further depressed as he was by the loss of a beloved wife, the task of governing the country was too great for his powers.

THE PROPOSED REMOVAL OF KING'S COLLEGE HOSPITAL.

A YEAR ago a committee of medical practitioners in South London held a conference with the watching committee of King's College Hospital (which is a subcommittee of the medical members of the managing board having advisory functions concerned with the new buildings) with regard to the administration of the hospital in its prospective locality. The practitioners were represented by the South London Hospitals Committee and this body presented 17 resolutions to the watching committee regarding the control of the hospital when it shall have changed its sphere of activity to South London, framed largely in the desire to promote the ethical interests of "outside" practitioners. 15 of these were accepted by the watching committee but that body found itself unable to recommend the remaining two to the King's College Hospital authorities. These stipulate (1) that every patient on attending a second time at the hospital must bring with him a recommendation signed by a qualified medical practitioner stating that he is a suitable person for hospital treatment from the points of view of his means and of the nature of his malady; and (2) that private wards or nursing homes for paying patients be distinct from the general hospital and not erected or maintained out of the funds given for hospital purposes. We understand that the watching committee felt unable to support the latter resolution in opposition to the views of the King's College Hospital board of management on the subject. With regard to the former proposal the committee considers that practitioners in the neighbourhood of a hospital cannot with the best of intentions be strictly impartial in the distribution of such "letters," especially if they are of opinion that the hospital is in any sense in competition with them. The South London Hospitals Committee, on the other

hand, is extremely desirous of getting these principles established before the hospital is moved and has convened a meeting of the medical practitioners of South London in the Town Hall, Peckham-road, on April 30th, at 4 P.M., when propositions embodying those principles will be moved after addresses have been delivered by several medical men. The points at issue open up fields too wide for discussion now; we shall return to them later.

THE Department of Public Health of Queensland in a bulletin dated March 7th states that a case of plague occurred at Brisbane on March 3rd. The patient was a male, aged 17 years. He was employed at a warehouse in which plague-infected rats had previously been caught. As regards the Gold Coast, a telegram received at the Colonial Office on April 14th states that during the week ending April 11th there had been 2 deaths from plague at Accra and 1 at Dodowah. All other places had been free from plague. A further telegram received on April 20th states that for the week ending April 18th there were no fresh cases of plague either at Accra or elsewhere in the colony.

UP to date 109 papers have been announced to be read before the First International Congress of First Aid to be held, as announced, in Frankfort-on-the-Main on June 10th to 14th. 25 of these papers are on first-aid in towns and 17 on first-aid in mines and similar works. Papers have also been prepared on first-aid at sea, at fires, on the railway, on the land, on the mountains, and in sport, and on the improvement of non-medical assistants. An exhibition of motor ambulances, sick wagons, and ambulance apparatus will include several novelties.

THE unexpected death is announced from Vienna of Professor Leopold Schrötter, the well-known laryngologist.

SANITARY REFORM IN INDIA.

VI.[1]—THE PLAGUE PROBLEM (*concluded*).

Burma.

A VERY complete and exhaustive survey of the whole subject of plague has been given by Colonel W. G. King, I.M.S., in the report on the Sanitary Administration of Burma for the year 1906, and he deals with the matter in a manner which entitles him to the greatest credit. The whole of the plague rules under the Epidemic Diseases Act underwent a thorough revision, more especially as regards the giving power to local authorities to secure a system of surveillance in advance of plague. It was laid down that in no case should segregation be regarded as the prime rule to be enforced at the commencement of an epidemic unless there was reason to believe that the persons concerned were so untrustworthy as to be likely to leave the neighbourhood of an infected locality without giving information of the fact. Instead of segregation "exemption certificates" were issued, requiring attendance once daily for six days. This proved useful in practice. Ward headmen and block elders had assigned to them definite duties in aid of the civil authorities, so as to enable the system of surveillance to be enforced, whilst the general conduct of disinfection and the organisation necessary in respect to *personnel* and equipment were explained in an appendix to the official notification issued by the Government. But for the correct working of these rules of course a sufficient staff was necessary, and, unfortunately, Burma possessed no certificated sanitary inspectors. Hence to remedy this defect so-called temporary plague inspectors were trained. The Government likewise, owing to the increase of plague, placed at Colonel King's disposal Captain H. A. Williams, I.M.S., D.S.O., as special plague officer for the province, under whom the inspectors were trained and the methods of treating the disease were harmonised. Colonel King himself continued the personal inspection of plague-infected areas as far as possible. There was a total of 8637 deaths from the disease in 1906, or an increase of 4945 as compared with 1905, the death-rate advancing from 0·44 in 1905 to 1·02 in 1906.

Regarding the measures pursued, steam disinfection was substituted for the wet methods of disinfection hitherto employed, this method being more popular probably with the owners of clothing. The success of the Clayton apparatus in killing rats induced Colonel King to ask for sanction for the purchase of the necessary machines, by means of which it was found that if the holes are sought for and the exits are discovered and closed rats can be killed freely. Even when these holes cannot be found and closed the machine is most useful in ejecting rats in a feeble condition so that they can be killed by sticks, and also by tracing the fumes the rat runs can be followed, which, of course, when the rats are infected by plague is important. Colonel King rightly considers the method of dealing with rats by sulphurous fumes, irrespectively of the length of the burrows, very important. The fumes only require to be forced in quickly to displace the air and to overpower the rats. Liston has shown that 0·4 per cent. of the gas suffices to kill the fleas. The Civil Surgeon of Maymyo advises the "flaming" method of disinfection for plague suggested by Colonel King in 1899. The latter officer, however, hesitated to advise its general adoption in a country where wooden structures are the rule. With the most ordinary care, however, he considers it safe even when applied to wooden buildings.

Colonel King very wisely comments on the abandonment of "passporting," which had been legalised by the Government of Burma, consequent on the representations by the commercial communities that the method would trammel trade in the province. These representations are short-sighted. For the prevention of plague, early detection is of prime importance. Man is the great agent for the introduction of the disease; once introduced, rats will disseminate it, but the latter animals are not the sole prime agents involved. This is shown by the results of the investigation of the civil surgeons during 1906. Of 43 cases of plague, in 39 the introduction of the disease was traced to an infected person arriving from an infected area, the infection of rats being the disastrous sequel where sanitary measures were not sufficiently prompt or complete. At present the rules in vogue merely give increased power of controlling "contacts" so long as they are within the infected areas; on their departure, therefore, no system of observation is maintained. Some approach to the passport system has, however, been allowed in uninfected areas lying close to the infected, and this, combined with a surveillance system, has detected several importations and thus presumably has prevented indigenous plague.

Surveillance without the aid of the passport system was also successfully utilised in some instances. At Insein, for instance, Major Singh, I.M.S., caused evacuation of portions of the town inhabited by railway employees during the severe epidemic of the disease that was present early in 1906. The plague then ceased. Surveillance was then rigidly resorted to and before the end of the year 43 cases imported from Rangoon were detected and were promptly treated sanitarily, with the result that although within nine miles of the constantly infected Rangoon and in constant touch with it the place remained free from indigenous infection. Dr. Gaudoin, again, in Yamethin, by organising surveillance and by prompt sanitary action prevented an outbreak of indigenous plague, notwithstanding the infected condition of the neighbouring towns of Pyinmana and Pyawbwe.

Another method was consistently pursued—namely, rat destruction, which was carried out not only after the invasion by plague of a locality but also in advance of any such occurrence. During the year 4,366,867 rats were killed in the province at a cost of Rs. 253,260, or 11·1 pies per rat. But it is found that the problem of killing rats at a cost that will not prohibit other necessary preventive measures has not yet been solved. The reports of the Deputy Commissioner show that he had no hope of any permanent diminution of their number, notwithstanding all the strenuous efforts undertaken to destroy these animals. The Government of Burma, however, was prepared during 1907 to undertake experimentally microbic efforts in this direction. In the meantime various poisons, rat-traps, and asphyxiators have been employed. So long as the burden of taking life rests

[1] Nos. I., II., III., IV., and V. were published in THE LANCET of Feb. 22nd (p. 582) and 29th (p. 661), March 14th (p. 806) and 21st (p. 883), and April 11th (p. 1101), 1908, respectively.

with others the people rarely show any objection to rats being destroyed.

With regard to the employment of Haffkine's antiplague inoculation this has been encouraged by every possible means. The local officers concerned have freely offered themselves as subjects for the method whenever necessary. The results were uniformly favourable as regard the small number of subsequent attacks; no ill effects on the general constitution were caused, whilst patients have declared themselves cured of chronic rheumatism and malaria thereby. Of the efficacy of evacuation in plague epidemics there has never been any doubt. By securing voluntary evacuation the Commissioner of the Pegu Division secured good results, whilst where there was delay in this measure as at Prome and Mandalay there was great mortality. Lastly, with respect to the variations of incidence of plague the Sanitary Commissioner of Burma remarks in regard to meteorological data that a comparatively low average temperature with great humidity is more inimical to plague prevalence than a higher temperature with less humidity, providing the daily maximum temperature in the latter case does not often exceed 96°.

Colonel King concludes his admirable report on plague with some weighty considerations as to its prevalence. He was one of the first to recognise the rôle played by rats, for in 1896 he issued a circular for public information in which it was stated that rats die from this disease and that "on the bodies of these animals being found they should be carefully burnt" He shows how in ancient times the Hindu shastras gave definite intimation of the connexion between rats and plague. He again urges the possibility of the intestinal canal of man playing a part in the transmission of the disease; he draws attention also to the possible rôle of the fly, particularly in pneumonic cases, and also to that of dust as a means of infection, concerning which Klein believes in the prolonged vitality of the plague microbe in sand. But he considers it non-proven at present that the rat is the sole medium of transmission, although he is of opinion that man is the chief introducing agent and the rat is the dreaded disseminator. The prime factor to recognise in the matter of prevention is that the utmost effort must be given to the surveillance of a threatened population and the control of those infected. To meet plague an organised sanitary service is essential capable of contending each inch of territory by the discriminatory use of all sound methods. There must be systematised surveillance (with full liberty of the person) of, usually, controllable human beings, the consequent early sanitary treatment of imported cases in uninfected localities, and the consequent prevention of infection of rats which are uncontrollable disseminators of infection. To obtain a sufficient staff for such a course of action may be expensive but it will be the cheapest in the end. The above report is presumably the last one that Colonel King will write; we can only say that this well-known officer has served his Government well throughout his career in India, and that in losing him the Government of India will lose a pre-eminently wise and able sanitarian who by his ungrudging labour has justly earned the respect of all who have worked with him.

Bombay.

Dr. J. A. Turner, the executive health officer of the municipality of Bombay, in his report for 1906 deals with the subject of plague administration. The campaign against rats was continued during the year, 231,392 rats having been collected and sent to the Government laboratory at Parel. These included live rats, dead rats in a putrid condition, and all rats sent on Sundays and holidays. Very few live rats were examined, as only a very small proportion of them were found to be infected. Of the above number sent 131,322 rats were examined, out of which number 18,572 rats were found to be infected. The larger number were found so infected during the first five months of the year. In January, at the request of Major E. Jennings, I.M.S., the superintendent of plague operations, 18 persons were sent on behalf of the district municipalities for instruction in the use and method of employing the "common-sense rat exterminator." Their instruction seems to have been very complete in all its details. It was brought to the notice of the executive health officer that rats migrated in large number from the steamers at anchor in the docks, and from these vessels to the Bundes, and measures were taken to counteract this migration by poison; whilst the corporation was requested to move the Government to issue a general resolution that no ship should be allowed to enter the Bombay docks before it is operated with the "common-sense rat exterminator" whilst it is in the harbour. Although this measure would cause a certain amount of inconvenience to the navigation traffic yet it would check the rat migration and therefore Dr. Turner urges the Government to enforce the measure suggested. Another measure to which great attention was paid was that of inoculation, in all 10,740 persons having been so treated. No friction was experienced, the divisional health officers devoting much of their spare time to explaining the advantages of the operation to illiterate persons. Railway passengers were also inspected at the instance of the health officer at Poona or other convenient stations, this measure being carried out smoothly and without causing any detention of, or inconvenience to, passengers. This method in 1906 was the means of detecting outside infection in various parts of the city and has thus helped the health department in controlling the spread of the disease.

Dr. N. H. Choksy gives an account of the results of the treatment of plague by the serum treatment and by adrenalin chloride. Three serums were employed. With respect to the Yersin-Roux serum, after rejecting those cases unfit for treatment, 60 cases were chosen, of which half were kept as "controls." In the 30 cases treated with the serum the rate of case-mortality was 46·6 per cent, whilst in the "controls" the rate of mortality was 66·6 per cent., there thus being a saving of life to the extent of 20 per cent. in the former. Comparing these results with those of 1905 there was a difference in favour of the serum of 13·6 per cent. Again, the results obtained from the employment of Professor Tavel's serum were found to be just as efficacious. With regard to the Japanese serum the cases are too few to arrive at any conclusion.

We come now to the results of the adrenalin treatment. This drug was found to be especially useful in supporting and sustaining the action of the heart during the most critical period of the illness. Dr. Choksy, amongst other conclusions, draws attention to the following facts: 1. That adrenalin chloride solution (1 in 1000) is of great use in the treatment of plague; it is most useful when employed early. The dose is best given as from 20 to 30 minims internally every two hours, or 20 minims every hour in very grave cases. It should not be administered with any other drug but given in plain water or, better, in normal salt solution. No alcohol should be used. Infants and children bear it well in proportionate doses but caution is required in advanced age. It is non-accumulative and it can be also employed subcutaneously in doses of from five to ten minims every two hours. Finally, the administration of the remedy, together with the use of the Yersin-Roux serum, constitutes the ideal treatment of the disease. A fair trial was also made of another preparation of the suprarenal gland—namely, the extract rena-glandin. The case mortality in 180 patients was 77·2 per cent., or 5 per cent. higher than that of adrenalin. An improved preparation was used subcutaneously during 1906, and in 36 patients the mortality was 66·6 per cent.—i.e., about the same as that of adrenalin used in the same way. This preparation, therefore, is deserving of further trial.

A very interesting report has been furnished by Lieutenant-Colonel W. B. Bannerman, Director of the Bombay Bacteriological Laboratory (formerly the Plague Research Laboratory), for the nine months ending Dec. 31st, 1906. During this period 119,207 doses of Haffkine's antiplague vaccine were sent out to the territories comprised under the titles British India, Native States, and Countries outside India. The demands for the prophylactic in 1906 fell in number, probably for the reason that the people hoped that some more agreeable method of protection from plague might be discovered by the appointment of the Plague Research Commission. Now, however, that the result of the investigations of the latter is known there are signs that inoculations will once more come to the front as the sheet anchor of the administrator and the sanitarian in their fight with plague. The Plague Commission proved amongst other things: (1) that plague is conveyed from rat to rat, and from rat to man, by means of fleas; and (2) that plague houses are infective only so long as they contain fleas. So to obtain protection from plague we must get rid of rats or fleas or of both. The former, as Lieutenant-Colonel Bannerman remarks, has been tried by many, yet with disappointing results. To be successful the rat population must be destroyed before the advent of plague; it is useless whilst an epidemic is raging in any village. Fleas have been

attacked by various oily emulsions, but the utility of this measure is much lessened by the fact that the first intimation of the infection of a house is the report of a case in it and that it is the exception to have a succession of cases of plague in one room. Hence really there are only two ways of escaping plague when once the epidemic has begun—namely, evacuation and inoculation. The former, though largely resorted to by the people themselves, is often unavailable for many reasons; thus we must rely mostly on inoculation. All plague prophylactic is now stored by Maynard's system of bottling, which works without trouble of any kind; tests have shown in 497 brews that no contamination occurs after bottling. Now the results of inoculation are highly satisfactory. Haffkine's antiplague vaccine has been used. No bad results have been reported. From the replies sent out by the numerous medical officers on the subject we see that the health of the inoculated has been, if anything, better since the operation was performed; where the epidemic was severe about 5 per cent. of the inoculated were attacked but only 1 per cent. died. Previous inoculation was found to modify the type of the disease and to reduce its severity greatly. The answers were also unanimous in stating that inoculation was a very great protection against plague and that in no case had any harm resulted and that immunity lasted for about a year. Thus the case mortality and the case incidence have been markedly reduced, no matter where the people lived—in town in their own homes, in camps, or under the best sanitary conditions. Truly a triumphant vindication of Mr. Haffkine's invaluable method of treating plague. Time in this case has certainly brought its undeniable revenge.

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Looking Back.

FROM

THE LANCET, *SATURDAY*, April 24th, 1830.

THE ordinary and efficient means by which the aberrations of the human mind are detected, are minute observation of the individual's conduct, inspection of his written documents, and protracted conversations to develop his delusions: and these examinations, on many occasions, require to be frequently repeated, before the insanity of the person can be exposed. For these tedious processes Dr. Burrows[1] has a remedy, which must be considered a peculiar endowment, the operation of which constitutes the greatest of modern improvements, and may be viewed as a short cut to the discovery of madness. We find, page 296, that—

"Mania, especially, is characterised by a peculiar odour; it is not the *hircum olet* of Horace, but is a smell quite unique, and when once recognised, it can never be mistaken for any other; it has been compared to the scent of henbane in a state of fermentation, but I know nothing which it resembles.

"This odour does not always attend on mania, and it differs in intensity. Personal cleanliness of the skin, and frequent changes of body-linen, much modify, and perhaps may remove it. Where it is generated, it is easiest detected by going in the morning into the chamber of the lunatic before he has risen, and before fresh air has been admitted. The maniacal odour is not noticed by every writer on the signs of insanity; nor, as I have said, is it always present; but I consider it a pathognomic symptom so unerring, that if I detected it in any person, I should not hesitate to pronounce him insane, even though I had no other proof of it."

This delicate and prodigious discrimination of the olfactory organs, removes other practitioners, not similarly gifted, to a distance truly humiliating, and confers on the simple perception of the lowest sense an instantaneous decision of a tainted intellect, which physicians, in general, are obliged to explore by the powers of the understanding, by comparison, by reason, and by judgment. We are not informed, by exact admeasurement, to what distance this perfume extends; but it must follow, that in states of convalescence, its emanations will be comparatively feeble, and formidably predominant in cases of relapse. In the reign of James the First, when witchcraft was in fashion, an individual, of the name of Hopkin, boasted, that he possessed an infallible tact for the discovery of these agents of the devil, and which he actually exercised under the confidence and patronage of those who ought to have known better.

[1] Excerpt from review of "Commentaries on the Causes, Forms, Symptoms, and Treatment, Moral and Medical, of Insanity." By George Man Burrows, M.D., Member of the Royal College of Physicians of London, etc. London: Underwood. 1828. 8vo, pp. 716.

to the terror and extermination of innocent old women. Hopkin was too cunning to divulge his secret, and this craft perished with the possessor. It is not impossible that the witch-finder was led by the nose to these important discoveries, for we see no reason why a peculiar effluvium should not equally issue from a witch as from a lunatic. In order to estimate duly this pathognomic symptom, we have inquired of those practitioners, whose experience has been most extensive in this department of the profession, and they univocally deny any knowledge of this scent, and broadly state, that it cannot be a sufficient criterion to send keepers to gentlemen's houses, or to warrant a certificate for the seclusion of an individual in a private asylum; and we are fully persuaded, that a jury *de lunatico inquirendo*, and the Metropolitan Commissioners, would reject, with scorn and indignation, any evidence established on this conjectural essence or attar of insanity.

MEDICINE AND THE LAW.

The Medical Man and the Coroner.

AT a recent inquest at Worcester the city coroner, Mr. W. B. Hulme, commented unfavourably upon the conduct of Dr. E. Walpole Simmons, the Poor-law medical officer, in the following circumstances. A labourer named Barnett had sustained a fall in his cottage through intoxication and had fractured a rib. He had been recommended by Mr. W. G. Bennett to attend at the infirmary and had done so but had developed pneumonia, from which he died 12 days after receiving the original injury. He had also displayed mental symptoms which caused Mr. Bennett to give his relatives an emergency order for his admission to a lunatic asylum, which was not made use of owing to the patient being too ill from the pneumonia to be moved with safety. After death had taken place Dr. Simmons, who apparently had taken charge of the case with a view to the removal of the patient under the emergency order, gave a certificate which ascribed death to the pneumonia following upon the fracture of a rib, and the coroner upon this being brought to his notice by the registrar held an inquest. At this he found fault with the medical man because he had not communicated with him (the coroner) directly, his questions and observations, with the answers of Dr. Simmons, being thus reported in the *Worcester Daily Times* of March 14th. "Why was this case not reported to me?" "Because I signed a death certificate knowing it would come to you." "I disagree with you there. Here is a man who dies as the result of an injury, and I ask you why it was not reported to me?" "Why, because I deliberately put broken ribs on the certificate so that it should be reported to you." "You were depending upon somebody else to do your duty. Your duty is that when there is a case for inquiry you ought to report it yourself." "It was an absolute certainty that it would come to you." "Only by a round-about way. You inform Mr. Everton [presumably the registrar of deaths] and Mr. Everton has to inform me but he is under no obligation to do so." As a result of these remarks on the part of the coroner the Worcester Medical Society held a meeting and instructed its honorary secretary to write to the coroner and to ask him for his authority for saying that it is the duty of medical men to notify the coroner in cases such as that described, with the further request that, unless he could show legal authority on his side, he should publicly withdraw censure based upon an assertion of failure of duty on the part of Dr. Simmons. The coroner in his reply denied having "censured" and said that there had been a discussion only as to what course should have been followed. With regard to the medical man's duties he wrote as follows:—

> It is the common law duty of every person in attendance upon or about the deceased to give information to the coroner. The medical attendant is clearly one such person and he should therefore in a case where there is any doubt as to the death being due to natural causes either withhold his certificate as authorised by Section 39 of the Registration of Births and Deaths Act, 1874, and give notice to the coroner, or if he gives such a certificate he should at the same time communicate with the coroner drawing his attention to the circumstances of the case.

No doubt from the point of view of the Worcester coroner and of other coroners the course suggested above would be a convenient one, and we entirely sympathise with Mr. Hulme in his undoubted desire that the functions of his important office should be performed efficiently. He forfeits our sympathy, however, where he assumes a tone towards a medical witness for the assumption of which there is no just cause and when he seeks to impose by his own authority upon medical practitioners duties which the law does not assign to them. We believe, moreover, that his observations at the inquest of which the report is before us, with regard both to the signing of the certificate and to other matters, were not of a character likely to produce that mutual goodwill and conciliation by which alone the existing Coroners Act can be administered with reasonable smoothness. Dr. Simmons placed on record in an authoritative document information which, as he had every reason to believe, would in due course reach the coroner and upon which the coroner might decide to hold an inquest and which might guide him in obtaining the evidence necessary for doing so. He might have done differently even to following one of the courses which the coroner recommends, and perhaps by tact and conciliation a coroner might obtain the adoption of such a practice within his district. On the other hand, Dr. Simmons might have declined to give a certificate and refused to give any information to anyone except only upon being summoned as a witness to the inquest. We do not say that such a procedure would be commendable but we doubt the coroner having any power to compel any other should the medical practitioners at Worcester choose to adopt it. With all respect to Mr. Hulme, the medical man is not quite in the same position as "the other persons in attendance upon or about the deceased." He is there by virtue of his profession and when the law requires of him in other matters that he should give information as to what he has observed professionally it lays down the course which he is to pursue in plain terms and assigns him a fee for doing that which he is ordered to do. The giving of information not required of him thus plainly by the law is, or may be, a delicate matter. His patient's affairs are not to be revealed lightly and although no medical man would hesitate as to his duty in his patient's interest, as, for example, if he believed that negligence on the part of the patient's relatives had accelerated death, he might think reasonably that it was undesirable to take an active part in procuring the holding of an inquest by writing to the coroner suggesting it, and the course adopted by Dr. Simmons in the particular case under discussion as a matter of fact gave the coroner the opportunity for considering whether he should hold an inquest, while the medical man did that which was legally and ethically correct. A revision of the law in such matters is very much to be desired but it is not likely to be accelerated by medical men doing voluntarily and without reward that which ought to be done after a prescribed form for a suitable fee; such voluntary action will never be universal and so the desired results will not be obtained with certainty and precision.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 8675 births and 4784 deaths were registered during the week ending April 11th. The mean annual rate of mortality in these towns, which had been equal to 17·4 and 16·8 per 1000 in the two preceding weeks, further declined to 15·4 in the week under notice, a lower rate than had prevailed in any previous week of this year. During the 13 weeks of last quarter the annual death-rate in these towns averaged 18·0 per 1000; the mean rate in London during the same period did not exceed 17·6. The lowest annual death-rates in the 76 towns in the week under notice were 6·1 in Handsworth, 9·2 in Barrow-in-Furness, 9·5 in Leyton and in Tottenham, and 9·9 in Walthamstow; the rates in the other towns ranged upwards to 22·3 in Rhondda, 22·9 in Smethwick and in Rochdale, 23·3 in Norwich, and 27·6 in Hanley. The rate of mortality in London during the week did not exceed 14·7 per 1000. The 4784 deaths in the 76 towns during the week showed a further decline of 438 from the numbers returned in the two preceding weeks, and included 412 which were referred to the principal epidemic diseases, against 486 and 445 in the two previous weeks; of these, 150 resulted from whooping-cough, 125 from measles, 53 from diphtheria, 41 from scarlet fever, 29 from diarrhœa, and 14 from "fever" (principally enteric), but not one from small-pox. The deaths from these epidemic diseases in the 76 towns were

equal to an annual rate of 1·3 per 1000, against 1·6 and 1·4 in the two preceding weeks; the rate from the same diseases in London was also equal to 1·3. No death from any of these epidemic diseases was registered during the week in Tottenham, Ipswich, Handsworth, Bury, or Barrow-in-Furness; the annual death-rates from these diseases ranged upwards, however, to 3·8 in Hastings, 4·1 in Merthyr Tydfil, 4·3 in Rhondda, and 4·9 in Stockton-on-Tees. The fatal cases of whooping-cough in the 76 towns, which had been 203 and 204 in the two preceding weeks, declined to 150 in the week under notice; the highest death-rates from this disease in these towns were 2·0 in Stockton-on-Tees, 2·7 in Northampton, 3·7 in Warrington, and 4·1 in Merthyr Tydfil. The 125 deaths from measles exceeded the number in the previous week by 15; they caused death-rates equal to 1·7 in Birkenhead, 1·8 in Preston, 2·0 in Stockton-on-Tees, and 2·7 in Rhondda. The deaths referred to diphtheria, which had been 62, 52, and 48 in the three previous weeks, rose again during the week to 53, and included 17 in London, five in Manchester and Salford, and three in Birmingham. The fatal cases of scarlet fever also showed a considerable increase upon the numbers in recent weeks, the highest death-rates therefrom being 1·1 in Walsall, 1·5 in West Bromwich, and 2·3 in Hastings. The 29 deaths attributed to diarrhœa showed a distinct decline; and only 14 deaths were referred to "fever," a lower number than in any previous week of this year. The number of scarlet fever patients under treatment in the Metropolitan Asylums and London Fever Hospitals, which had steadily declined in the 18 preceding weeks from 5581 to 3121, had further fallen to 2972 on April 11th; only 297 new cases were admitted to these hospitals during the week under notice, against 378, 355, and 315 in the three preceding weeks. One case of small-pox was under treatment in the Metropolitan Asylums Hospitals at the end of the week. The deaths in London referred to pneumonia and other diseases of the respiratory organs, which had increased from 317 to 351 in the four preceding weeks, declined to 274 in the week under notice, and were 49 below the corrected average number in the corresponding week of the five years 1903–07. The deaths directly referred to influenza in London fell during the week to 37, a decline of 27 from the number in the previous week. The causes of 38, or 0·8 per cent., of the deaths registered in the 76 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were again duly certified in London, Leeds, Bristol, West Ham, Hull, Newcastle-on-Tyne, and in three other smaller towns; seven uncertified causes of deaths were, however, registered in Birmingham, five in Liverpool, five in Sheffield, and three in Norwich.

In 76 of the largest English towns 7955 births and 4748 deaths were registered during the week ending April 18th. The mean annual rate of mortality in these towns, which had been equal to 17·4, 16·8, and 15·4 per 1000 in the three preceding weeks, further declined to 15·2 in the week under notice, the lowest rate recorded since the beginning of this year. During the first three weeks of the current quarter the death-rate in these towns has averaged only 15·8 per 1000; the rate in London during the same period did not exceed 15·3. The lowest annual death-rates in the 76 towns during the week under notice were 7·3 in Willesden, 7·7 in Burton-on-Trent, 8·4 in Handsworth, and 8·7 in Walthamstow and in Grimsby; the rates in the other towns ranged upwards to 21·7 in Preston, 21·9 in Rhondda, 22·5 in Coventry, 22·7 in Tynemouth, and 24·2 in Huddersfield. The rate of mortality in London during the week did not exceed 14·7 per 1000. The 4748 deaths in the 76 towns during the week showed a further decline of 36 from the numbers returned in recent weeks, and included 382 which were referred to the principal epidemic diseases, against 488, 445, and 412 in the three previous weeks; of these, 134 resulted from whooping-cough, 127 from measles, 39 from diphtheria, 34 from scarlet fever, 30 from diarrhœa, and 18 from "fever" (principally enteric), but not one from small-pox. The deaths from these epidemic diseases in the 76 towns were equal to an annual rate of 1·2 per 1000, against 1·6, 1·4, and 1·3 in the three preceding weeks; the rate from the same diseases in London was equal to 1·3. No death from any of these epidemic diseases was registered last week in Leicester, Derby, St. Helens, Wigan, Rochdale, or in nine other smaller towns; the annual death-rates from these diseases ranged upwards, however, to 3·3 in Barrow-in-Furness, 3·8 in Reading, 3·9 in Birkenhead, and 6·9 in Stockton-on-Tees. The fatal cases of whooping-cough in the 76 towns, which had been 204 and 150 in the two preceding weeks, further declined to 134 in the week under notice; the highest death-rates from this disease in these towns were 1·3 in Sunderland, 1·5 in Bootle and in Sheffield, 1·9 in Reading, and 2·5 in Barrow-in-Furness. The 127 deaths from measles showed a further increase of two upon the numbers in the two previous weeks; they caused death-rates equal to 2·0 in Salford, 2·6 in Birkenhead, 2·7 in Preston, and 6·9 in Stockton-on-Tees. The deaths from diphtheria, which had been 48 and 53 in the two preceding weeks, declined during the week to 39, and included 14 in London, and two each in Norwich, West Bromwich, Liverpool, and Manchester. The 34 fatal cases of scarlet fever showed a decline of seven from the number in the previous week; they again showed the highest annual rate, 1·1 per 1000 in Walsall. The 30 deaths attributed to diarrhœa exceeded those in the previous week by one, and the 18 deaths referred to "fever" showed an increase of four. The number of scarlet fever patients under treatment in the Metropolitan Asylums and London Fever Hospitals, which had steadily declined in the 19 preceding weeks from 5581 to 2972, had further declined to 2837 on April 18th; 328 new cases were, however, admitted to these hospitals during the week under notice, against numbers declining from 378 to 297 in the four preceding weeks. One case of small-pox was under treatment in the Metropolitan Asylums Hospitals at the end of the week. The deaths in London referred to pneumonia and other diseases of the respiratory organs, which had been 351 and 274 in the two preceding weeks, were again 274 in the week under notice, and were 40 below the corrected average number in the corresponding week of the five years 1903–07. The deaths directly referred to influenza in London were 37, corresponding with the number in the previous week. The causes of 42, or 0·9 per cent., of the deaths registered in the 76 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were again duly certified in London, Leeds, Bristol, West Ham, Hull, Bradford, Leicester, and in 44 other smaller towns; five uncertified causes of death were, however, registered in Liverpool, four in Birmingham, and three both in Manchester and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been equal to 18·5, 19·4, and 19·7 in the three preceding weeks, declined again to 18·8 in the week ending April 11th, but exceeded by no less than 3·4 the mean rate during the same week in the 76 large English towns. Among the eight Scotch towns the death-rates during the week ranged from 14·2 and 14·8 in Leith and Perth, to 19·5 in Dundee and 21·1 in Glasgow. The 663 deaths in these eight towns showed a decline of 31 from the number returned in the previous week, and included 87 which were referred to the principal epidemic diseases, against 114 and 97 in the two preceding weeks; of these, 40 resulted from measles, 13 from whooping-cough, 10 from "fever," 10 from diarrhœa, and seven both from scarlet fever and diphtheria, but not one from small-pox. These 87 deaths were equal to an annual rate of 2·5 per 1000, against 1·3, the mean rate during the week from the same diseases in the 76 English towns. The fatal cases of measles in the eight Scotch towns, which had been 58 and 35 in the two preceding weeks, rose again during the week to 40, of which 32 occurred in Glasgow, five in Edinburgh, and two in Paisley. The 13 deaths from whooping-cough showed a considerable decline from recent weekly numbers, and included seven in Glasgow and three in Edinburgh. The 10 deaths referred to "fever" exceeded the number in the previous week by three, nine being certified as cerebro-spinal meningitis and one as enteric; five were recorded in Glasgow, two both in Edinburgh and Leith, and one in Dundee. The 10 deaths attributed to diarrhœa were fewer than in any recent week, including five in Aberdeen and four in Glasgow. Of the seven fatal cases of diphtheria six occurred in Glasgow; and of the seven deaths from scarlet fever five were recorded in Dundee and two in Glasgow. The deaths referred to diseases of the respiratory organs in the eight towns, which had declined in the three preceding weeks from 158 to 114, rose again in the week under

notice to 128, and exceeded by eight the number returned in the corresponding week of last year. The causes of 22, or 3·3 per cent., of the deaths in these eight towns during the week were not certified or not stated; in the 76 English towns the proportion of uncertified causes of death in the same week did not exceed 0·8 per cent.

The annual rate of mortality in eight of the principal Scotch towns, which had been equal to 19·7 and 18·8 per 1000 in the two preceding weeks, further declined to 16·4 in the week ending April 18th, but exceeded by 1·0 the mean rate during the same week in the 76 large English towns. Among the eight Scotch towns the death-rate during the week ranged from 12·9 and 13·8 in Leith and Edinburgh to 16·7 in Greenock and 18·0 in Glasgow. The 578 deaths in these eight towns showed a further decline of 85 from the numbers returned in the two preceding weeks, and included 77 which were referred to the principal epidemic diseases, against 114, 97, and 87 in the three previous weeks; of these, 36 resulted from measles, 18 from whooping-cough, 11 from diarrhœa, six from "fever," five from scarlet fever, and one from diphtheria, but not one from small-pox. These 77 deaths were equal to an annual rate of 2·2 per 1000, against 1·2, the mean rate during the week from the same diseases in the 76 English towns. The fatal cases of measles in the eight Scotch towns, which had been 35 and 40 in the two preceding weeks, declined again to 36 in the week under notice, of which 23 occurred in Glasgow, six in Edinburgh, five in Paisley, and two in Aberdeen. The 18 deaths from whooping-cough exceeded the number in the previous week by five, and included 13 in Glasgow. Of the 11 deaths attributed to diarrhœa six were returned in Glasgow and two in Dundee. The six deaths referred to "fever" showed a decline of four from the number in the previous week, all being certified as cerebro-spinal meningitis, four occurred in Glasgow and one each in Edinburgh and Leith. Two of the five fatal cases of scarlet fever and the death from diphtheria were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 114 and 128 in the two previous weeks, declined again to 121 in the week under notice, but exceeded by 17 the number returned in the corresponding week of last year. The causes of 27, or 4·7 per cent., of the deaths in these eight towns during the week were not certified or not stated; in the 76 English towns the proportion of uncertified causes of death in the same week did not exceed 0·9 per cent.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 27·4 and 26·0 per 1000 in the two preceding weeks, declined to 22·5 in the week ending April 11th. During the 13 weeks of last quarter the death-rate in Dublin averaged 25·5 per 1000, the mean rate during the same period being only 17·6 in London and 18·3 in Edinburgh. The 170 deaths of Dublin residents registered in the week under notice showed a further decline of 27 from the high numbers returned in recent weeks, and included nine which were referred to the principal epidemic diseases, showing an increase upon recent weekly numbers. These nine deaths from epidemic diseases were equal to an annual rate of 1·2 per 1000, the death-rate during the week from the same diseases being 1·3 in London and 1·5 in Edinburgh. These nine deaths in Dublin included four from measles, three from diarrhœa, and one each from scarlet fever and whooping-cough, but not one either from diphtheria, "fever," or small-pox. The four fatal cases of measles exceeded the number returned in any previous week of this year. The 170 deaths from all causes in the city during the week included 23 of infants under one year of age and 46 of persons aged upwards of 60 years; both these numbers were below those returned in any recent week. Seven inquest cases and five deaths from violence were registered, and 75, or 44·1 per cent., of the deaths occurred in public institutions. The causes of four, or 2·4 per cent., of the deaths registered in the city during the week under notice were not certified; all the causes of death in London were duly certified, while in Edinburgh the proportion of uncertified deaths was equal to 4·7 per cent.

The annual rate of mortality in Dublin, which had been equal to 27·4, 26·0, and 22·5 per 1000 in the three preceding weeks, rose again to 23·1 in the week ending April 18th. During the first three weeks of the current quarter the death-rate in Dublin averaged 23·9 per 1000; the mean rate during the same period did not exceed 15·3 in London and 15·6 in Edinburgh. The 175 deaths of Dublin residents registered in the week under notice showed an increase of five upon the number returned in the previous week, and included seven which were referred to the principal epidemic diseases, a decline of two from the number in the previous week. These seven deaths were equal to an annual rate of 0·9 per 1000, against 1·3 and 1·5 from the same diseases in London and Edinburgh; they included three from measles, three from whooping-cough, and one from scarlet fever, but not one either from diphtheria, "fever," diarrhœa, or small-pox. The fatal cases of measles showed a decline of one from the number in the previous week, while those of whooping-cough showed an increase. The 175 deaths from all causes in the city during the week included 25 of infants under one year of age and 51 of persons aged upwards of 60 years; both these numbers exceeded those returned in the previous week. Five inquest cases and four deaths from violence were registered, and 67, or 38·3 per cent., of the deaths occurred in public institutions. The causes of nine, or 5·1 per cent., of the deaths registered in the city during the week under notice were not certified; all the causes of death in London last week were duly certified, while in Edinburgh the proportion of uncertified deaths was equal to 7·5 per cent.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Surgeons: G. Price to the *King Alfred;* and H. G. T. Major to the *Donegal.*

ARMY MEDICAL SERVICE.

Surgeon-General William J. Charlton is placed on retired pay (dated, April 11th, 1908). Colonel John C. Dorman, C.M.G., to be Surgeon-General vice W. J. Charlton (dated, April 11th, 1908). Lieutenant-Colonel Alfred Peterkin, from the Royal Army Medical Corps, to be Colonel, vice J. C. Dorman, C.M.G. (dated, April 11th, 1908). Colonel Charles Seymour is placed on retired pay (dated April 12th, 1908).

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel Henry K. Allport is placed on temporary half-pay, on account of ill-health (dated April 22nd, 1908). Lieutenant-Colonel Henry K. Allport, from temporary half-pay, retires on retired pay (dated April 22nd, 1908).

Lieutenant-Colonel Denham F. Franklin retires on retired pay (dated April 22nd, 1908).

Lieutenant-Colonel D. Hennessy, commanding the Station Hospital, Deolali, has been granted privilege leave till June next.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel Frederick H. Appleby, having reached the age for retirement, ceases to belong to the Army Medical Reserve of Officers (dated April 2nd, 1908).

The under-mentioned Surgeon-Captains to be Surgeon-Majors (dated April 4th, 1908): George Melville and Lewis W. Pockett.

The notification in the *London Gazette* of March 3rd that Surgeon-Captain Samuel M. Sloan ceased to belong to the Army Medical Reserve of Officers is cancelled.

MENTIONED IN DESPATCHES.

In despatches published in the *Gazette of India* relating to the Zakka Khel campaign the name of Lieutenant-Colonel M. W. Kerin, R.A.M.C., is mentioned.

THE KING'S BIRTHDAY.

Notice is given in the *London Gazette* that the King's birthday will be celebrated in London and at all home stations on June 26th. At all other stations His Majesty's birthday will be celebrated on Monday, Nov. 9th.

DEATHS IN THE SERVICES.

Lieutenant-Colonel Francis S. Peck, I.M.S., on board the R.M.S. *Persia* in the Mediterranean on April 9th. He was buried at sea. The deceased officer, who was in his fifty-first year, was educated at Clifton College and received his medical training at the Bristol Medical School and St. Thomas's Hospital. He qualified as L.R.C.P. Edin. in 1880, having taken the M.R.C.S. Eng. in the previous year. He entered the Indian Medical Service in 1880 and served with

the Burmese Expedition in 1886–87 (medal and clasp). He was gazetted lieutenant-colonel in 1900 and for some time was professor of midwifery at Calcutta Medical College and also obstetric physician and surgeon at the Eden Hospital, Calcutta.

ARMY MEDICAL SERVICE EXAMINATIONS.

An examination of candidates for not less than 30 commissions in the Royal Army Medical Corps will be held on July 29th and following days. Applications to compete should be made to the Secretary, War Office, London, not later than July 20th, on which date the list will be closed. Candidates who are over the regulated limit of age at the date of the examination will be permitted to deduct from their actual age any period of service in the field after Oct. 1st, 1899, that they could reckon towards retired pay and gratuity, if such deduction will bring them within the age limit. The presence of candidates will be required in London from July 27th.

THE NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund held on April 14th, Inspector-General W. H. Lloyd, R.N., being in the chair, the sum of £55 was distributed among the several applicants.

Correspondence.

"Audi alteram partem."

THE RESEARCH DEFENCE SOCIETY.

To the Editor of THE LANCET.

SIR,—A society has been formed, with the name of the Research Defence Society, to make known the facts as to experiments on animals in this country; the immense importance to the welfare of mankind of such experiments; and the great saving of human life and health directly attributable to them. The great advance that has been made during the last quarter of a century in our knowledge of the functions of the body and of the causes of disease would have been impossible without a combination of experiment and observation.

The use of antiseptics and the modern treatment of wounds is the direct outcome of the experiments of Pasteur and Lister. Pasteur's discovery of the microbial cause of puerperal fever has in itself enormously reduced the deaths of women in childbirth. The nature of tuberculosis is now known and its incidence has materially diminished. We owe the invention of diphtheria antitoxin entirely to experiments on animals.

The causes of plague, cholera, typhoid fever, Mediterranean fever, and sleeping sickness have been discovered solely by the experimental method. Not only have a large number of drugs been placed at our disposal but accurate knowledge has replaced the empirical use of many of those previously known. The evidence before the Royal Commission has shown that these experiments are conducted with proper care; the small amount of pain or discomfort inflicted is insignificant compared with the great gain to knowledge and the direct advantage to humanity.

While acknowledging in general the utility of the experimental method, efforts have been made by a section of the public to throw discredit on all experiments involving the use of animals. The Research Defence Society will therefore endeavour to make it clear that medical and other scientific men who employ these methods are not less humane than the rest of their countrymen who daily, though perhaps unconsciously, profit by them. The society proposes to give information to all inquirers, to publish *précis*, articles, and leaflets, to make arrangements for lectures, to send speakers, if required, to debates, and to assist all who desire to examine the arguments on behalf of experiments on animals. It hopes to establish branches in our chief cities and thus to be in touch with all parts of the kingdom, and to be at the service of municipal bodies, hospitals, and other public institutions.

The society was formed on Jan. 27th of the present year, and already numbers more than 800 members. It is not an association of men of science or of medical men alone; its membership has been drawn from all departments of public life and includes representatives of every class of educated Englishmen and Englishwomen, including many who have taken an active part in the prevention of cruelty to animals. This fact is in itself a remarkable protest against the attacks which have been made on the researches that the society has been formed to defend.

The annual subscription is 5*s.* to cover working expenses but larger subscriptions or donations will be gladly received. The acting honorary treasurer, *pro tem.*, is Mr. J. Luard Pattisson, C.B. (of the Lister Institute), and an account in the society's name has been opened with Messrs. Coutts and Co., 440, Strand. The honorary secretary is Mr. Stephen Paget, 70, Harley-street, London, W., to whom all communications should be addressed.

I am, Sir, yours faithfully,
CROMER,
President.

*** We have the pleasure to support Lord Cromer's arguments in a leading article. We append an alphabetical list of the Vice-Presidents which sufficiently shows the powerful and many-sided support which the movement has already received.—ED. L.

The Duke of ABERCORN, K.G.
Sir T. CLIFFORD ALLBUTT, F.R.S.
Sir L. ALMA TADEMA, R.A.
Sir WILLIAM ANSON, Bart., D.C.L., M.P.
The Right Hon. Lord AVEBURY, F.R.S.
The Marquess of BATH.
Lord BLYTH.
The Very Rev. the Dean of CANTERBURY, D.D.
Earl CATHCART.
Lord ROBERT CECIL, K.C., M.P.
The Very Rev. the Dean of CHESTER, D.D.
Lord CHEYLESMORE, C.V.O. (Chairman, Middlesex Hospital).
The Very Rev. the Dean of CHRIST CHURCH, D.D.
Sir JAMES CRICHTON-BROWNE, F.R.S.
The Right Hon. Sir SAVILE CROSSLEY, Bart.
Sir EDMUND HAY CURRIE.
The Rev. Dr. DALLINGER, F.R.S.
FRANCIS DARWIN, F.R.S.
Sir GEORGE H. DARWIN, K.C.B., F.R.S.
Sir JAMES DEWAR, F.R.S.
Sir A. CONAN DOYLE, LL.D.
The Rev. Canon DUCKWORTH, C.V.O.
The Bishop of EDINBURGH, D.D.
The Right Rev. the Lord Bishop of EXETER, D.D.
The Rev. A. M. FAIRBAIRN, D.D., LL.D., D.LITT. (Principal of Mansfield College, Oxford).
Lord FABER.
Lord FARRER.
Sir LUKE FILDES, R.A.
Sir DAVID GILL, K.C.B., LL.D., F.R.S.
The Right Rev. the Lord Bishop of GRANTHAM, D.D.
The Hon. WALTER GUINNESS, M.P.
The Right Hon. the Earl of HALSBURY, K.B., F.R.S.
Lord CLAUD HAMILTON.
H. A. HARBEN, Esq. (Chairman, St. Mary's Hospital).
J. T. HELBY, Esq. (Chairman, Metropolitan Asylums Board).
The Hon. SYDNEY HOLLAND (Chairman, London Hospital).
Sir JOSEPH DALTON HOOKER, G.C.S.I., F.R.S., O.M.
Sir WILLIAM HUGGINS, O.M., K.C.B., F.R.S.
J. HUGHLINGS JACKSON, M.D., LL.D., F.R.S.
MONTAGUE RHODES JAMES, Litt.D.
Sir ALFRED JONES, K.C.M.G.
The Earl of KILMOREY (Chairman, Charing Cross Hospital).
Sir E. RAY LANKESTER, K.C.B., F.R.S.
The Right Hon. Lord LINDLEY, LL.D., D.C.L., F.R.S.
Sir NORMAN LOCKYER, K.C.B., F.R.S.
The Right Hon. WALTER H. LONG, M.P.
HENRY LUCAS, Esq. (Chairman, University College Hospital).
The Hon. G. W. SPENCER LYTTELTON, C.B.
FREDERICK MACMILLAN, Esq. (Chairman, National Hospital for the Paralysed and Epileptic).
The Right Hon. Sir HERBERT E. MAXWELL, Bart., F.R.S.
Lord METHUEN, G.C.B., K.C.V.O.
The Earl of NORTHBROOK (President, Cancer Hospital).
Lord NORTHCLIFFE.
Professor OSLER, F.R.S.
The Right Rev. the Lord Bishop of OXFORD, D.D.
Sir GILBERT PARKER, D.C.L., M.P.
Sir FREDERICK POLLOCK, Bart., LL.D., D.C.L.
Sir JOHN DICKSON POYNDER, Bart., M.P. (Chairman of the Great Northern Hospital).
The Right Rev. the Bishop of NORTH QUEENSLAND, D.D.
Sir WILLIAM RAMSAY, K.C.B., F.R.S.
Sir JAMES REID, Bart., G.C.V.O.
The Very Rev. Hon. the Dean of RIPON, D.D.
Sir HENRY ROSCOE, F.R.S.
The Right Hon. the Earl of ROSSE, K.P., LL.D., F.R.S.
Lord ROTHSCHILD, G.C.V.O.
Sir ARTHUR RÜCKER, F.R.S.
The Very Rev. the Dean of SALISBURY, D.D.
The Marquis of SLIGO.
The Right Hon. Sir CECIL CLEMENTI SMITH, G.C.M.G.
The Hon. W. F. D. SMITH, M.P. (Chairman of Removal Fund, King's College Hospital).
Sir THOMAS SMITH, Bt., K.C.V.O.
The Hon. Sir RICHARD SOLOMON, K.C.B., K.C.M.G.
Sir EDGAR SPEYER, Bart. (President, Poplar Hospital).
Lord STANLEY, K.C.V.O.
Lord STRATHCONA, G.C.M.G.
Sir FREDERICK TREVES, Bart., G.C.V.O.
Sir JOHN BATTY TUKE, M.P.
JAMES G. WAINWRIGHT, Esq. (Treasurer, St. Thomas's Hospital).
Earl WALDEGRAVE.
A. W. WEST (Treasurer and Chairman, St. George's Hospital).
Sir JAMES WHITEHEAD, Bart. (First President of the Lister Institute).
Sir SAMUEL WILKS, Bart., F.R.S.
The Right Hon. Sir ALFRED WILLS.
The Rev. HENRY GEORGE WOODS, D.D. (Master of the Temple).

DEATHS DURING ANÆSTHESIA.

To the Editor of THE LANCET.

SIR,—In your issue of April 11th Mr. H. Bellamy Gardner criticises Dr. F. J. Waldo's article in THE LANCET of March 21st. He summarises the article in question in the following way:—(*a*) Dr. Waldo complains that the Registrar-General's statistics of deaths under anæsthetics are not of much use from a statistical point of view "because they do

not state the particular anæsthetic under which they occurred." (*b*) Dr. Waldo's own statistics are valueless because he does not specify the anæsthetic used and the total number of cases of administration. (*c*) Dr. Waldo argues in favour of a coroner's inquest in every case of death under anæsthesia "in order to improve the statistics."

Now, Sir, I venture to say Mr. Bellamy Gardner shows by that summary that he has failed to grasp the gist of Dr. Waldo's article, and I will deal with his points seriatim. (*a*) Dr. Waldo complains that the Registrar-General's statistics of deaths under anæsthetics are of little use from a statistical point of view "because they do not state the particular anæsthetic under which they occurred." The total deaths reported for England and Wales 1902-06 were 786, but the fact that the precise drug used was not reported in 204 cases surely justifies Dr. Waldo's general proposition that no statistics worthy the name exist with regard to anæsthetic mortality. Scientific progress, it may be added, depends mainly on increased accuracy, and such accuracy is certainly not a distinguishing feature of the study of anæsthesia. From a general survey of Dr. Waldo's paper it may be gathered that his objections to the Registrar-General's returns are based on the presence of a number of fallacies in addition to the particular one cited—namely, that of omission of the mention of the drug involved. Such fallacies include the anæsthetic deaths that occur in private practice, which as a rule never come either to official or to public notice. Can Mr. Bellamy Gardner contend that it is possible to arrive at any conclusion of scientific value unless we have full information of the fatalities that occur in the administration of anæsthetics in private practice? In the same way other no less essential data are lacking, such as, for example, the exact method of death, nature of operation, stage of anæsthesia at which death occurred, and "delayed" deaths due to the anæsthetic. Until statistics can be produced on a large scale, including these and other essential data, I venture to assert that the "science" of anæsthetics must be little more than mere guesswork at the balance of probabilities.

(*b*) Dr. Waldo's own statistics "are valueless because he does not specify the particular anæsthetic under which they occurred," and because he does not give the total number of administrations in the two large charitable institutions within his district whence the figures are drawn. As a matter of fact, Dr. Waldo points out in so many words that no sound conclusions can be drawn from these institutions, "which are fully abreast of, if not in advance of, the majority of the hospitals of the United Kingdom." In one of the two, he says, there is reason to suppose that many administrations are not noted at all. If this be so in two of the best-equipped and regulated hospitals in London what must happen in smaller institutions in the rest of the kingdom and from what precise field does Mr. Bellamy Gardner gather the evidence for the formation of his own opinion? He asks if Dr. Waldo is in ignorance of the work of the Anæsthetics Committee of 1900 which investigated some 25,920 deaths under anæsthesia. The very passage he quotes from their report bears out to the letter the general contention of Dr. Waldo that there are no statistics in existence on this particular subject of any scientific value. The passage quoted by Mr. Bellamy Gardner runs:—"From a careful study of the whole facts at their disposal the subcommittee feel that owing to (1) the large number of factors in the problem; and (2) the personal equation of the numerous recorders it is impossible to arrive at uniformly satisfactory statistics on the several points submitted to their consideration." In other words, the subcommittee emphasise the fact that no sound conclusions are possible from the facts at their disposal.

(*c*) Dr. Waldo "argues for a coroner's inquest in every case of death during general anæsthesia in order to improve the statistics." Mr. Bellamy Gardner ventures to think "that a poorer argument than the foregoing never was put forward upon a matter of importance." I fail to gather the existence of any such argument from a careful perusal of the original article. Mr. Bellamy Gardner may be somewhat reassured as to Dr. Waldo's wish to get beyond the dry and arid region of statistics if he reads carefully conclusions 5 and 6 of the article in question and considers all that is therein connoted; the conclusions are: "5. That with such imperfect data it is impossible to form any trustworthy conclusions as to the absolute ratio of fatalities to administrations, or to the relative proportion of deaths to administrations in the case of particular anæsthetic drugs." "6. That it is highly desirable to arrive at satisfactory conclusions as to the precise facts of all deaths under anæsthesia both for the safety of the public and the furtherance of scientific knowledge."

Other points raised in Mr. Bellamy Gardner's letter I leave to be dealt with by those who have the necessary special knowledge and experience. Those to which I have adverted appear to be well within the intellectual province of the average medical man.—I am, Sir, yours faithfully,

Bryanston-street, W., April 13th, 1908. DAVID WALSH.

ON THE TREATMENT OF SMALL-POX BY LARGE DOSES OF MERCURY WITH CHALK.

To the Editor of THE LANCET.

SIR,—Syphilis is an infectious fever; Dr. W. Moxon called it "a fever diluted by time." Of all the fevers small-pox most closely resembles syphilis, especially in its acute secondary form. The acuteness of secondary syphilis, I believe, can only be appreciated after one has seen that disease in India; the treatment here, in consequence, has to be correspondingly vigorous; five grains of mercury with chalk three times a day has very little immediate effect, but ten grains three times a day removes all obvious signs of the skin eruption in from three to six days. In fact, mercury appears to act towards syphilis as quinine does to malaria, a certain sufficient dosage being necessary to abate the disease, and until this dose has been reached very little immediate relief is given.

In view of the discovery of the spirochæta pallida the necessity of administering a cer'ain quantity of mercury before the disease can be allayed is now readily appreciated. The striking resemblance between acute secondary syphilis and small-pox suggested the employment of mercury in the treatment of the latter complaint also. Experience with syphilis showed that 30 grains of mercury with chalk per day for seven consecutive days produced no diarrhœa or symptoms of poisoning but, on the contrary, gave such marked relief that I decided to employ the same dosage also for small-pox. The results have proved so very satisfactory that I have been tempted to describe them, although my conclusions are drawn from the observation of only eight cases. Of the eight cases three had been vaccinated and five had not. Seven were adult men and one was a boy aged 12 years. All were natives of Oudh.

The first case was that of a boy, aged 12 years; he was sent from a mission school on the first sign of the disease. His face, arms, and legs were thickly covered with typical small-pox papules, which were present also on his scalp and the palms of his feet and hands. On the face the papules were so closely situated as to be almost contiguous. No vaccination marks were present; the case would be described as a severe one. He was removed to the small-pox hospital (Lucknow) and given five grains of mercury with chalk three times a day for six days, then twice a day for the next four days, and once a day for the next three days. Sweet oil was used to soften the skin. The diet consisted of four pints of milk a day. The course of the disease turned out to be very mild, though from the first appearances it threatened to be very severe. The temperature never rose above 103° F. and the papules did not suppurate and break down. There was no diarrhœa or sign of mercurialism. On discharge, six weeks after admission, there were no scars, merely the usual pigmented patches seen in natives. The desquamation of the palms and soles was rather tedious. The remaining seven (six were sepoys and followers) were typical cases of small-pox, all were more than moderately severe, and all were seen very early. The treatment in all seven consisted of 10 grains of mercury with chalk three times a day for six days, then twice a day for four days, and once a day for four more days, 14 days in all. Sweet oil was used to soften the skin; no other medicine was given. The diet consisted of four pints of milk per day, and in addition four ounces of arrowroot and two of sugar when the temperature reached normal. There was never any sign of mercury poisoning and no diarrhœa. The mercury seemed to have a marked influence in lowering the temperature and in modifying the course and subsequent fate of the papules in that no active suppuration occurred and the disease was both cut short and simplified, leaving the

patients in most instances free of all pits and scars (two patients showed two small pits each on the face).

In future I intend to further push the mercury during the first three days as it is the immediate influence which is so necessary. From experimentation I find that the lethal dose of mercuric chloride is 1 in 1,000,000 in ten minutes, for the bacillus coli suspended in water in quantities of 200,000 per cubic centimetre, at a temperature of 98° F. Also, that all things being equal, the lethal power of $HgCl_2$ is proportionate to the temperature at which the germicidal action takes place. It is very probable that the ingestion of 30 grains of mercury with chalk per day produces at any rate a 1 in 500,000 solution of mercury in the blood (10 stones = 980,000 grains). The spirochæta pallida we know is very susceptible to the influence of mercury; these experiments with variola appear to show that the micro-organism of small-pox (whatever it may be, but probably also a protozoon) is also susceptible. Mercury, in the form in which it exists from the absorption of mercury with chalk from the alimentary canal, cannot be said to exert an active germicidal influence over all forms of micro-organisms, but possibly the biological processes of the spirochæta pallida and the variola organism (?) can engender a bactericidal activity in the comparatively inert circulating mercury; possibly other pathogenic protozoa can also do this. It seems highly probable that mercury has been used before for the treatment of small-pox, but I can find no reference, and the text-books make no reference of it.

It is obviously unsound to draw conclusions from the results of only eight cases, which might all have taken the simple course they did without any medication, but still the results appear worth recording, in the hope that others may be tempted to try this remedy which, at any rate, is harmless. The conclusions drawn are: (1) ten grains of mercury with chalk three times a day by the mouth, continued for six days, produces no symptoms of poisoning in small-pox; and (2) the drug appears to have a marked action in modifying and reducing the severity of the disease.

I am, Sir, yours faithfully,

V. B. NESFIELD, F.R.C.S.,
Captain, I.M.S.; Medical Officer 2nd 7th Gurkha Rifles, Quetta.

April 3rd, 1908.

THE INHALATION TREATMENT OF CONSUMPTION AND "CATARRH."

To the Editor of THE LANCET.

SIR,—The form of inhalations usually prescribed nowadays is that in which volatile drugs are administered through the medium of inhaled steam. This no doubt benefits many mild cases of nasal catarrh and bronchitis, but the relief afforded is most probably due to the soothing effect of the warm moist air inhaled rather than to any action of the drugs placed in the inhaler. To reach the deeper part of the respiratory tract and to produce an effective antiseptic action inhalations must be given of air impregnated with the vapour of volatile drugs without the presence of an undue quantity of moisture. The difficulty and trouble required to obtain a good result have hitherto led to the unpopularity of this method in the medical profession, and want of a proper understanding of the right way in which to carry out inhalation treatment has sometimes led to bad results when it has been tried. Nowadays the treatment is often prescribed in a simple form, as with a small inhaler fitted over the mouth and nose and containing a small sponge charged with volatile antiseptics. These forms of treatment are exceedingly mild and the results obtained, though useful, are not usually very striking.

Some years ago Hassall made considerable advances in the subject and showed that it was possible to thoroughly impregnate the air of a closed room with volatile antiseptics so that a patient subsequently using the room could not avoid drawing a definite quantity of the substances right down into the lungs during the ordinary process of breathing. But such treatment necessitated the use of special inhalation rooms which could not be always placed at the disposal of the patients unless they left their homes, and indeed in most cases would be difficult to arrange in a private house. However, his experiments showing the readiness with which certain drugs capable of destroying bacilli can be volatilised from extensive surfaces when aided by warm air currents made it apparent that this principle was of great importance and only wanted the invention of a suitable apparatus to be of very great use in the treatment of diseases of the lungs and air passages.

On turning my attention to this question, in an endeavour to better the results I had obtained with simple forms of apparatus, it occurred to me that the inconvenience of impregnating the air of a whole room with antiseptics could be avoided by using instead the air of a moderately sized portable chamber, so that patients could breathe such impregnated air through a simple tube and face-piece. Consequently I have had such a chamber made about 3½ feet high and 1½ feet in width and depth, and rendered airtight with the exception of an inlet and outlet tube, both of which are guarded with valves. In it wide strips of Turkish towelling are suspended from side to side in such a manner that the air current from the inlet to the outlet is bound to come freely into contact with the exposed surface of the towelling. By saturating the strips of towelling with solutions of a known quantity of various volatile substances and closing the chamber the air in it becomes thoroughly impregnated with the vapours given off and can be breathed by the patient who adjusts the face-piece over his mouth and nose and inspires and expires in the ordinary way. The length of time the inhalation is continued depends on individual cases and must, of course, be carefully regulated.

There is no discomfort in the use of the apparatus as each patient can adjust the face-piece himself, and should he not like the strangeness of breathing through a tube at first he can readily remove the face-piece and breathe the outer air should he so desire. Moreover, by attaching a cylinder containing compressed air to the inlet tube a constant stream of air impregnated with the volatile antiseptics contained in the chamber can be obtained through the face-piece and inhaled with comfort; I am inclined to think that experience will show that this method of using inhalation chambers is the best one. The volatility of substances such as creosote may be greatly increased by raising the internal temperature of the chamber either by a suitable arrangement of electric lamps or by warming the current of air passing into the chamber.

It is unquestionable that every method of inhalation treatment *must be continuous if it is to be effective*, and there is no doubt that greater progress has not been made with this form of medication because it has been tried with unsuitable apparatus. There is all the difference between taking a few intermittent breaths through a small, poorly charged inhaler and continuously breathing purified and medicated air for an hour or so at a time. The reputed success of Hassall's chambers was no doubt due to his appreciation of this essential principle of inhalation treatment, and I have every hope that my portable inhalation chamber will give results as good.

I am, Sir, yours faithfully,

Harley-street, W., April 20th, 1908. EDWIN ASH.

MALIGNANT DISEASE OF THE CÆCUM.

To the Editor of THE LANCET.

SIR,—Everyone interested in the treatment of malignant disease of the large intestine will have read Mr. Charters J. Symonds's third Lettsomian lecture[1] with much profit and pleasure. We venture, however, to put forward some remarks on points which seem to us to be of more importance than is apparently attached to them by the lecturer.

Throughout the lecture Mr. Symonds makes repeated references to the excision of glands, but we have been quite unable to understand what has been the extent of gland removal in his cases. The anatomy of the lymphatics in this region has been worked out by many observers and there is a sufficiently precise nomenclature in use. It is unfortunate that the clearness of the description of the cases is marred by the absence of definite statements as to the gland groups dealt with. The term "glands close to the spinal column," without reference to their position with regard to the ileo-colic vessels or to the duodenum, is vague and might well denote the lumbar glands, which cannot be intended. The glands invaded, or likely to be invaded, in carcinoma of the cæcum are those which lie on and about the ileo-colic artery and its branches, extending upwards as far as the origin of the artery from the superior mesenteric in front of the duodenum, a clearly circumscribed group not extending into the mesentery, except at its extreme lower end. We are unable to imagine the presence of diseased glands in the mesentery or near the aorta except in cases of advanced and inoperable disease.

In considering the limit of operation Mr. Symonds asks how far should enlarged glands set a limit to the question of resection, and says, "Theoretically a gland as large as a

[1] THE LANCET, April 4th, 1908, p. 936.

bean, close to the spine, infers lymphatic infection beyond and points to the impossibility of eradicating the disease." There is no indication in Mr. Symonds's paper that any part of any specimen removed has been microscopically examined. Even in the case where "a gland was enclosed in a ligature and part had to be left" we are led to believe that the gland was malignant without being referred to the testimony of the microscope. At the present time there is comparatively little information as to the extent of gland invasion in cases which, from other points of view, are operable, and it is a matter for regret when the record of a case affords no information on the microscopic characters of the glands removed. It is most misleading to look upon the size or even the hardness of a gland as proof of malignancy. Glands as large as a bean at the upper end of the ileo-colic chain are not infrequently observed in cases where there is no suspicion of malignant or other disease of the bowel. It is well that "experience shows that the presence of such glands need not weigh against excision."

We have shown[2] that the whole of the ileo-colic chain of glands must be regarded as being primary to the cæcum and appendix, glands at the extreme upper end of the chain receiving direct vessels from the bowel and standing in the same relation to it as those in contact with it. Assuming that by "a gland close to the spine," one of the uppermost members of this chain is meant and bearing in mind the anatomy of the chain, it does not seem to us that an obvious enlargement of such a gland, even if thought to be definitely malignant, should disturb the operator's intention or give rise to more apprehension than a diseased gland of the anterior or posterior ileo-colic groups which would certainly deter no one from proceeding to excision. Gland disease limited to the ileo-colic chain and not involving the great glands around the superior mesenteric trunk should not forbid excision, other conditions being favourable, nor should the presence or absence of diseased glands determine the extent of the operation. In cases where there is no obvious change in the glands the whole of the chain should be removed, otherwise there is no reasonable certainty of complete removal of possibly infected glands. In cases where the glands are enlarged and possibly malignant there may be less certainty of complete removal. Shortly, we may say that this operation is the least and the most that may be done in carcinoma of the cæcum and ascending colon.—We are, Sir, yours faithfully,

J. F. DOBSON.
School of Medicine, Leeds. J. KAY JAMIESON.

A NOTE ON THE TREATMENT OF DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Most practitioners are no doubt familiar with the excellent results obtained in severe cases of diphtheria marked by vomiting and cardiac depression by the adoption of Dr. Rolleston's method. This method consists in the administration by the mouth or rectum of a solution of adrenalin chloride with camphor water. In practice, however, it is sometimes inadvisable to give in the condition referred to *anything* by the mouth, and in other cases there may be intolerance of rectal injections.

For nearly two years past I have used at the Mortlake isolation hospital specially prepared tabloids, each containing $\frac{1}{300}$th of a grain of adrenalin chloride and $\frac{1}{100}$th of a grain of sulphate of strychnine, to make solutions for hypodermic injection and I have found this plan answer admirably. One or two of these tabloids may be administered every two, three, or four hours according to the gravity of the case; the action of the adrenalin appears to be sustained by the strychnine, which, of course, has its own special value in diphtheria, and the treatment can be continued and carried to a happy issue when neither mouth nor rectal administration is possible.

The method is of service even in cases admitted in a desperate condition, but its greatest value, I think, is displayed when the administration of the two drugs is commenced immediately that vomiting or cardiac irregularity is noticed. We make it a part of the daily routine that immediately on the occurrence of vomiting all food, medicine, and throat treatment are stopped and adrenalin and strychnine be at once given hypodermically.

Some account of this treatment was given in a paper published in the *West London Medical Journal* for July, 1907, but a year's increased experience has amply confirmed my opinion of its usefulness.

I am, Sir, yours faithfully,

F. G. CROOKSHANK, M.D. Lond.,
Barnes, S.W., April 18th, 1908. Medical Officer of Health.

[2] THE LANCET, April 27th, 1907, p. 1137.

THE CONGENITAL PIGMENTATION OF MONGOLIANS.

To the Editor of THE LANCET.

SIR,—A curious condition has been brought to my notice by a very observant midwife: it is that every full-caste Chinese baby is born with a large-sized ecchymosis or bluish-black staining on each buttock in the centre of which is a still blacker spot. On the baby with which I had the chance of observing this strange mark the centre of intense colouration was on one side only, but both buttocks had a distinctly circumscribed bluish-black discolouration beneath the skin. I have examined other Chinese children and have found bluish-black areas up to the age of two years; in one baby six months of age it had already disappeared, but the father assured me it was there when it was born and also in all his children; in some families the spots were mostly situated high up on the sacrum.

I have seen a Japanese baby three months of age, but I cannot say that I found the discolouration except a slight stain on the sacrum, but even amongst them it is a well-known and looked-for sign, and its absence in the newly born is the cause of some amusement; they seem to know the white child does not possess this distinctive sign at birth.

I do not know if this peculiarity has been commented upon before. As the Chinese are intensely exclusive in matters connected with attendance on their women at child-birth it is the exception for a male doctor to be present. It was further stated by the midwife that she had observed it in the half-caste Chinese children but, curious to remark, on only one buttock, inferring that its incompleteness was indicative of Chinese intercourse with European women.

I am, Sir, yours faithfully,

EDWARD P. LEAVY, L.R.C.P. & S., L.M. Irel.,
Government Medical Officer, Geraldton.
Geraldton, Johnstone River, Queensland, Feb. 10th, 1908.

*** We publish on p. 1223 of this issue a brief annotation on Mr. Leavy's communication.—ED. L.

MEMORIAL TO THE LATE PROFESSOR ANNANDALE, PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF EDINBURGH.

To the Editor of THE LANCET.

SIR,—Many friends and former pupils of the late Professor Annandale, in the belief that a scheme for establishing a memorial to perpetuate his name would be received with general approval, are taking steps towards its accomplishment. For this purpose a large and influential general committee has been formed, also a small executive committee.

It is proposed that a fund should be raised for the purpose of awarding a gold medal annually to the best student in clinical surgery at the final examination to be known as "The Annandale Gold Medal in Clinical Surgery." In addition to this it is thought that a bust of the late Professor should be placed in the lecture theatre of the Royal Infirmary, Edinburgh, so long associated with his teaching. As the late Professor Annandale identified himself so closely and for so many years with the athletic life of the University it has been suggested that if there should be any surplus after providing for these objects it might be devoted to some memorial in connexion with the athletic club.

The committee have appointed Mr. H. M. D. Watson, C.A., 13, Rutland-square, Edinburgh, to act as their secretary and treasurer, and those who desire to subscribe are requested to communicate with him as soon as possible, as it is thought important to carry through the scheme without delay.

Yours faithfully,

WM. TURNER,
Principal of the University of Edinburgh.
J. M. COTTERILL,
President of the Royal College of Surgeons Edinburgh.
H. M. D. WATSON,
Edinburgh, April, 1908. Secretary and Treasurer.

NOTES UPON HEALTH RESORTS.

SCANDINAVIAN WINTER HEALTH STATIONS.

(BY A SPECIAL COMMISSIONER.)

SCANDINAVIA in winter is to most English physicians a *terra incognita*. Much of the favour long extended to the Riviera, Egypt, and Alpine resorts for winter residence has been the direct outcome of the recommendations of members of the medical profession. Now that many of the pleasant resting places and health stations which formerly devoted their first and chief attention to the requirements of the invalid and health-seeker are being invaded by wealthy tourists, sportsmen, and others, it may be not inopportune to consider whether new and desirable climatic centres are not available. Your Commissioner has therefore investigated by personal inquiry and direct observation the attractions and conveniences suited to the tastes and requirements of English patients which are now being offered by Norway and Sweden for winter residence.

These countries are well known and highly prized by many who have visited them in summer, but it must be clearly stated at once that opinions formed from conditions then existing can afford no trustworthy guide as to the methods of life and conditions of climate prevailing during the months of winter. In these articles it is proposed to limit consideration, as far as is possible, to Scandinavia in winter.

It is only comparatively recently that the people of Norway and Sweden have awakened to the possibilities of their countries as winter lands for the seekers of health and sport. The opening up of Switzerland as a popular winter resort has perhaps been the most definite influence in arousing the business instincts of Scandinavians. It must also be admitted that the people of these lands themselves are, generally speaking, only just beginning to recognise their winter privileges and opportunities. Thus winter sports are now being organised and followed with an enthusiasm which comes with the force of a new discovery. The children of to-day are entering into the open-air winter pursuits in a manner hardly dreamt of by their parents. In the same way the establishment of winter health stations is comparatively a new enterprise. It is therefore not to be expected that the needs and desires of foreign visitors can have received as yet full consideration. But having once realised the value of the inheritance there is every reason to believe that Scandinavia will not only considerably extend its health stations for its own peoples but will attract winter visitors from England and other parts of Europe.

WINTER ROUTES TO SCANDINAVIA.

Although Norway and Sweden are not so far distant as is popularly supposed, it must be admitted at once that the methods of access are not always as easy as could be desired. In this respect Scandinavia is, and must remain, so far as English visitors are concerned, at a considerable disadvantage as compared with Switzerland. The North Sea intervenes, and this sea is a peculiarly uncertain one, for while the smoothest passage of the year may be in mid-winter its waters are readily troubled. Still, all things considered, I am of opinion that for the majority the best route, at least to Norway, is by Messrs. Thos. Wilson, Son, and Co.'s steamers from Hull to Christiania. The Great Northern and North-Eastern Railways run a through coach from King's Cross Station to Hull. During the winter months the steamer leaves the Hull docks on Friday night. The dining-car express leaving King's Cross at 5.45 P.M. should be taken, thus allowing of a comfortable meal before going on board. Your Commissioner, in his tour of investigation, considered it desirable to test the North Sea passage, and crossed by the *Oslo* and returned in the *Montebello*, both excellent boats, comfortable, well furnished, with electric light, hot and cold baths, suitably heated, and admirably staffed. For a patient or health seeker who is a good sailor this route is the most direct, the least tedious, and certainly the healthiest, and, moreover, it has the advantage of being the cheapest.[1]

[1] Those travelling by this route should communicate with Mr. Spaven, passenger manager of Messrs. Thos. Wilson, Son, and Co., Limited, Hull, and reserve an outside cabin some weeks before departure. It is well also to reserve a seat in the dining-car express, which, however, must be vacated at Doncaster and the journey continued in the coach going directly to Hull.

Visitors to Sweden may travel by steam to Gothenburg by ships of the English Wilson line or the Swedish Thule line. Those wishing to go directly to Stockholm will probably travel by one of the so-called overland routes.[2] For invalids the changes entailed and the over-heating—according to English ideas—of Scandinavian railway carriages are serious drawbacks.

In both Norway and Sweden excellent tourist associations have been formed, the former with a central office in Christiania, and the latter with headquarters in Stockholm. These issue many informing publications and are always ready to afford help to prospective visitors. I desire to take this opportunity of acknowledging my indebtedness to Mr. H. Malling of the "Norwegian Tourist Traffic Association"[3] and Mr. V. Langlet of the "Swedish Tourist Association"[4] for much information and assistance most willingly rendered. But while these central bodies, although somewhat limited by means, are doing much to collect, collate, and distribute material relating to health and sports stations in their respective countries,[5] it must be noted that hitherto comparatively few of the individual sanatoriums and health resorts have even issued prospectuses in English. Some, however, prepare German editions. Until directors of these establishments understand the necessity for a presentation of their claims in English I fear our insular and non-linguistic countrymen will be slow to perceive what they are missing.

The new line between Bergen and Christiania will have such an influence in the opening up of Scandinavia, and especially Norway, that its importance can hardly be over-estimated. Along the course of this highway are many centres which doubtless will be quickly developed into summer resorts, and not a few should be well adapted for winter stations. I had hoped to have been able fully to explore this line, but at the time of my visit the way was blocked by snow, and although elaborate preparations had been made for such contingency it would seem that many more snow shelters and tunnels will have to be erected. A quick direct service to Bergen from English and Scottish ports will make some of the finest districts of Norway readily accessible to British visitors. The railway opens up some of the most beautiful parts of the fjords of Western Norway, the charming Hallingdal, and mountain plateaux where ski-ing may be practised till almost the middle of summer.

WINTER CLIMATIC CONDITIONS IN SCANDINAVIA.

In selecting a winter health station there is need for discrimination. Norway and Sweden are such extensive countries that considerable variations in climatic conditions necessarily exist and this is true both for summer and winter.

The West Coast of Norway and the southern parts of Sweden, generally speaking, are not specially suited for winter residence and need not be considered here.

The climatic conditions prevailing during the greater part of the winter throughout a considerable portion of the Scandinavian peninsula are almost ideal as regards the conduct of many forms of winter sport which, one and all, are particularly health giving and health preserving. For many cases of pulmonary tuberculosis, especially in the incipient stage, and for those who by inheritance or acquired infirmities are disposed to this disease, certain centres in both Norway and Sweden present advantages equal to, and in some respects surpassing, those enjoyed by the most favoured winter resorts of Switzerland. Reference to Scandinavia as a desirable land for climato-therapy during winter is in most English and American works dealing with climatic stations conspicuous by its absence, or at best extremely meagre and indefinite. It is interesting to note, however, that in the recent authoritative work of Sir Hermann Weber and

[2] For full particulars concerning the various routes to Norway and Sweden consult Baedeker's Norway, Sweden, and Denmark (London: Dulau and Co., price 8s.); Cook's Tourist's Handbook to Norway (London: Thos. Cook and Son, 1907, price 1s. 6d.); Bennett's Handbook for Travellers in Norway (Christiania: Thos. Bennett and Sons, price 3 kr.); Bradshaw's Through Route to the Chief Cities of the World (London: Henry Blacklock and Co., Limited, price 5s. net); Wroughton's Winter Sports Annual for 1907–8 (London: Simpkin, Marshall, and Co., 1907, price 2s.).

[3] Forening for Reiseliveti Norge, 2 Storthingsgaden, Kristiania.

[4] Svenska Turistföreningen, 2 Norrlandsgatan, Stockholm.

[5] The Norwegian Tourist Traffic Association has issued an English edition of a most useful list of hotels, sanatoriums, and Skyds stations; and the Swedish Tourist Association publishes annually an excellent illustrated directory of sanatoriums, baths, tourist hotels, and other similar institutions ("Hvilo-och Kurorter i Sverge en Öfversikt af Badorter, Luftkurorter, Sanatorier, Turesthotell, Pensionat, Lanthem. M. M. utgifven af Svenska Turestföreningen"). A condensed edition should certainly be issued in English.

Dr. Parkes Weber[6] the opinion is expressed that the climatic state of the mountainous regions of Norway "can exert a bracing effect on invalids and healthy persons equal to that produced by climates of considerably higher altitude in the Swiss Alps." This seems to be undoubtedly the case and is indeed for many cases an advantage of no little importance.

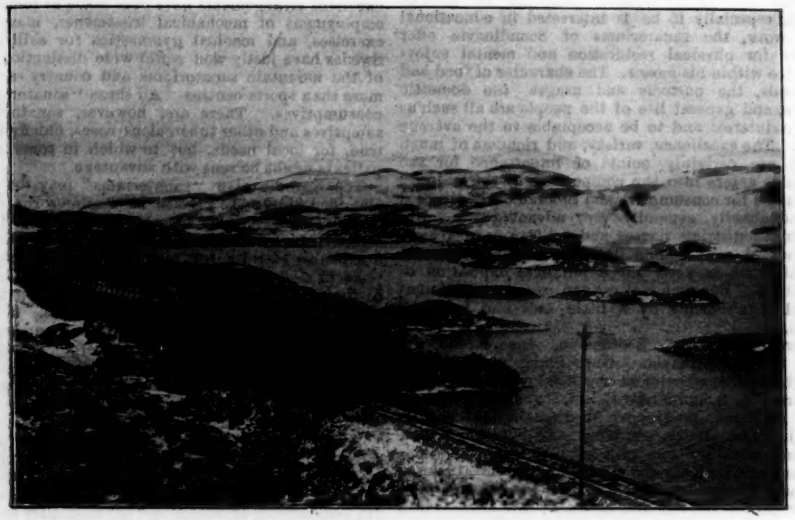
Norway is distinctly a mountainous country, having a mean altitude of about 1500 feet. It consists mainly of deep fjord-cut mountains, elevated mountain plateaux and valleys, extensive forests, and comparatively small areas of cultivated land. Its towns are small and its homesteads are widely scattered. From North to South its extent is 1100 miles, while its breadth varies from seven to 280 miles.

Sweden is a more extensive country. It is over 1000 miles long and has an area of 172,876 square miles. Whilst comparatively flat in its greater extent it is rich in lakes and rivers and in certain districts, particularly the far-extending Norrland, offers unlimited opportunities for the winter sportsman.

In both countries there can be found practically all the natural conditions desirable for a winter sanatorium, such as pure, rarefied, dry, dust-free, and bracing air, much sunlight, absence of irritating fogs, little wind, and moderate altitude. The snow-covered ground secures an absence of dust, a reflecting medium for the sun's rays, and a surface which lends itself to numerous forms of health-giving exercise. Snow does not fall frequently but usually comes at more or less definite times.

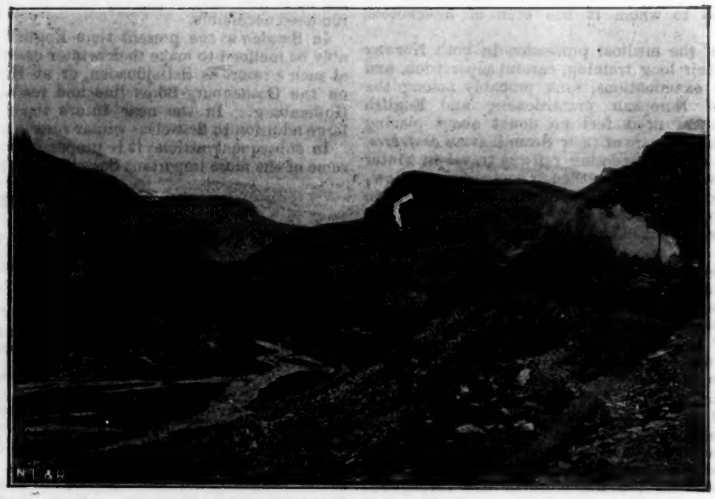
It should also be noted that the sanatoriums are often situated in forest regions where timber for construction is

FIG. 1.



Snow tunnel on the new Bergen to Christiania Railway, 4260 feet above sea level.

FIG. 2.



View in the course of the new Bergen to Christiania Railway.

[6] "Climatology and Balneology," by Sir Hermann Weber, M.D., F.R.C.P., and F. Parkes Weber, M.D., F.R.C.P., p. 184 (London, 1907.)

available and where mountain torrents provide power at a minimum of expense for the production of electric light, &c.

CONDITIONS OF LIFE AND FACILITIES FOR TRAVEL.

It must be admitted that the health seeker requires much more than natural features of climate and landscape. It is necessary to consider carefully whether other conditions of life are likely to be suited to the requirements of the English visitor healthy or sick. To the luxury-loving and extravagant invalid Scandinavia is hardly likely to appeal. But for the majority of vigorous sport-loving Britishers its winter charms will be irresistible. And for the middle-class patient, especially if he is interested in educational and social work, the sanatoriums of Scandinavia offer opportunities for physical restoration and mental enjoyment at a price within his means. The character of food and order of meals, the customs and usages, the domestic arrangements, and general life of the people are all such as are likely to interest and to be acceptable to the average Englishman. The excellence, variety, and richness of much of the food are certainly points of importance for the invalid. Cream enters into the composition of the majority of the dishes and for consumptive and tuberculously disposed cases is undoubtedly generally very advantageous. Unfortunately in all districts houses and railway carriages are much over-heated, and double doors and windows clearly indicate that there is need for a practical exposition of open-air methods. But such matters can usually be adjusted to individual requirements by a little tact and judicious arrangement.

The Norwegian is the Scotchman, the Swede the Frenchman, of Scandinavia. Christiania reminds one of Edinburgh, and Stockholm is the acknowledged "Paris of the North." Scandinavians are, generally speaking, highly educated, progressive in thought and action, democratic in State affairs, courteous and hospitable, and ready to extend a real welcome to English visitors. Relationships between our own King and Queen and the Royal houses of Norway and Sweden afford a very real link binding the Scandinavian people and our own country; and there is also a true kinship in sentiment and sympathy. It may also be noted that in great measure their point of view may be said to be our point of view. The visitor will, however, do well to remember that the events leading up to, and culminating in, the separation of Norway from Sweden are not sufficiently far removed to make it wise or desirable to discuss the matter with those to whom it has been of momentous importance.

The members of the medical profession in both Norway and Sweden, by their long training, careful supervision, and strictly regulated examinations, rank probably among the best qualified of European practitioners, and English medical practitioners need feel no doubt about placing their patients under the care of their Scandinavian *confrères*.

A note may be added respecting railway travel in winter in Norway and Sweden. This, although comparatively slow, is thoroughly comfortable and the arrangements made whereby trains stop at certain stations to allow travellers the comfort of well-cooked but inexpensive meals are particularly admirable.[1]

The non-linguistic Englishman need have no hesitation about not being understood. English is taught in practically all the schools; and in all the important hotels, sanatoriums, and establishments catering for English visitors English is spoken. Most of the Norwegian and Swedish physicians with whom I was in consultation spoke fairly good English, although it must be admitted that they generally stated that their German was better. In the public schools German is usually commenced some two years before English is studied. In the universities German text-books seem to be chiefly used and medical and other monographs appealing to the outside world are usually printed in Germany. Co-education of the sexes prevails more or less throughout Scandinavia and certainly appears to be altogether advantageous, as judged both by the home life and in the conduct of the more public avocations.

SCANDINAVIAN SANATORIUMS AND HEALTH STATIONS FOR WINTER RESIDENCE BY ENGLISH VISITORS.

The term "sanatorium" in both Norway and Sweden is used in a much broader sense than that in which we are accustomed to employ it at home. It is used to include what we should designate hydropathic establishments, mountain health resorts, and country hotels. Most of these are not intended for cases of serious illness. Some seek to attract those requiring recuperation for body and recreation of mind, convalescents, the overworked, neurasthenics, and subjects standing in need of a simple rest cure, quiet and gentle exercise in a salubrious and picturesque district. Others have more or less elaborate equipment for simple and medicinal baths and take chronic cases of rheumatism, cardiac derangement, anæmia, and the like. In Sweden excellent arrangements have been made at some places for the employment of mechanical treatments, massage, physical exercises, and medical gymnastics for skill in which the Swedes have justly won world-wide distinction. Not a few of the mountain sanatoriums and country resorts are little more than sports centres. All these "sanatoriums" exclude consumptives. There are, however, sanatoriums for consumptives and other tuberculous cases, chiefly intended, it is true, for local needs, but to which in some cases English patients might be sent with advantage.

The Scandinavian "sanatoriums" may be conveniently classified thus: 1. Private sanatoriums for consumptives. 2. Public sanatoriums for consumptives. 3. Public marine sanatoriums for tuberculous children. 4. Sanatoriums which are health stations for non-tuberculous visitors: (*a*) with resident medical director; and (*b*) without resident physician. 5. Country and mountain sanatoriums (*a*) open all the year round and (*b*) open during certain seasons. 6. Marine sanatoriums, usually open only during the summer. With these last we have at present no concern. In addition to the above there are a number of sports club houses, tourist hotels, and skyds stations, which young and vigorous persons of both sexes frequent in the winter months and particularly during the Easter holidays.

Your Commissioner is of opinion that at present in the selection of a centre suited to the requirements of the majority of English visitors seeking health and rest in winter two important points should be kept in mind: (1) convenience of access and (2) proximity to an important town. Judged by these considerations the most suitable winter stations in Norway may be looked for in the neighbourhood of Christiania and Trondhjem, and in the south-eastern and eastern country districts in Valdres, Gausdal, and Gudbrandsdal and their neighbourhoods. With the opening up of new lines of railway other desirable centres will be rendered accessible.

In Sweden at the present time English visitors will probably be inclined to make their winter centres near Stockholm at such a resort as Saltsjöbaden, or at Hindas or Hultafors on the Gothenburg-Böras line and readily accessible from Gothenburg. In the near future there promises to be a large addition to first-class winter resorts in Sweden.

In subsequent articles it is proposed to deal in detail with some of the more important Scandinavian health stations.

[1] The chief railways in both Norway and Sweden belong to the State but some few lines are still in the hands of private companies. The traveller should always obtain the current number of the official time tables before arranging a journey.

THE BATTLE OF THE CLUBS.

(FROM OUR SPECIAL COMMISSIONER.)

THE STRUGGLE AGAINST THE COVENTRY PROVIDENT DISPENSARY.—FORMATION OF A NEW DISPENSARY SERVICE.—RESULT AFTER NINE MONTHS.—DISCIPLINARY SANCTIONS.—EFFECT OF THE DISPUTE ON HOSPITAL ABUSE.

Coventry, April 13th, 1908.

THE struggle between the medical profession and the Coventry Provident Dispensary has passed through the acute and has now reached the chronic stage. Nothing very startling is likely to occur but a long and patient tussle between the two parties will probably continue for some years to come. More than ten years ago the points at issue were fully described.[1] The abuses were then acknowledged by the medical staff in the employ of the dispensary but they failed to see that it was possible to take any effective remedial action. There were many practitioners close by at Birmingham ready to take their places. The majority of the practitioners at Coventry had united together and had even formed an association called the Coventry Public Medical Service, where contract work was organised by the medical men themselves in such a manner

[1] THE LANCET, June 12th (p. 1637) and 19th (p. 1707), 1897.

that no abuse could arise, and they complained that the medical officers in the service of the Coventry Provident Dispensary would not join them. The latter retorted that if they did they would lose some £2000 annual income without any sort of compensation or even the hope of putting an end to the abuses which existed. Later, however, when the British Medical Association took the matter up, the medical officers of the dispensary felt less isolated. They began to look forward to some outside support but they certainly missed the psychological moment at which they should have taken action. When the local division of the British Medical Association decided not to consult with the medical officers of the Coventry Provident Dispensary they should then and there have made their stand. Instead of this a year was lost in negotiations and attempts to effect a compromise. At last one of the dispensary medical officers had a dispute with the committee of management and this precipitated matters. As already related, five members of the dispensary medical staff resigned and ceased to work for that institution on June 25th last. Being compelled to give three months' notice the dispensary had time to obtain the services of three outsiders. One of these newcomers has displayed great energy and has acquired a certain popularity. Further, he took the bull by the horns and instead of waiting to be attacked for his action in helping to break the strike he actually attempted to prosecute the medical officers of the dispensary who had resigned. The case is described in full in the supplement of the *British Medical Journal* of Dec. 7th, 1907. The officers who had resigned were accused of sending a canvasser around to tout for patients. Of course, the accusation could not be maintained.

When the five members of the Coventry Provident Dispensary resigned they agreed to start a new dispensary service. Certainly it would have been better had they thrown in their lot with the organisation formed years ago by the majority of the Coventry practitioners precisely for the purpose of putting an end to the abuses connected with contract practice. However, this was thought to be too great a change, more than could be expected all at once, though perhaps it may ultimately be brought about. Nor could the local practitioners energetically urge such a course, because it might appear as if they were arguing in their own interests. Indeed, so great was their anxiety to avoid any such suspicion that the members of the Coventry Public Medical Service decided to refuse to accept any patients who had been attended by the five officers of the Provident Dispensary. Thus it cannot be said that they helped to produce the dispute in the hope of reaping some personal advantage. Though the rules of the new organisation are not so good as their own they are a great improvement on the Old Provident Dispensary. Thus the Coventry Public Medical Service has a wage limit of 30*s.* a week, and no medical officer can have more than 3000 subscribers on his books; the limit used to be 2000 but was extended in the hope of inducing practitioners to give up their private clubs. The new dispensary service has a £2 per week wage limit and no limit as to the number of subscribers on any one practitioner's books. This latter is a serious flaw, for it is impossible to do justice to a very large number of patients. Again, the Coventry Public Medical Service is open to all fully qualified medical practitioners, whereas to join the new organisation it is necessary to be elected by a two-thirds majority. One good point is that the new dispensary service is not managed wholly by its members but one member of the local division of the British Medical Association is added to them so that the general interests of the profession will be represented. Then there is a rule debarring any medical practitioner who has commenced practice in Coventry without an introduction from being elected for four years. Also, any member found guilty of infamous conduct in the professional sense can be expelled by a two-thirds majority.

Subscribers are enrolled in the new dispensary service whose yearly incomes do not average more than £2 a week, and he or she must pay 1*d.* per week. Persons over 60 years of age have to pay 10*s.* entrance fee and a collector is to call once a month for the money. Illnesses caused by drunkenness or immorality are not included in the treatment given. For confinements the charge to members is 1 guinea and a midwife's charge is 10*s.* Such are the rules of the new service which four out of the five medical officers of the old Provident Dispensary formed. The fifth lives so far away that it is not thought practicable for him to participate and those subscribers to the old dispensary who left when he left enrolled themselves in the personal, private club which he has established. When all this was arranged a collector was engaged at a fixed salary so that he has no interest in persuading people to join, that is to tout. Yet this is the man who was accused of touting. What he did was to call on all the patients of the four medical officers who had resigned their posts on the Provident Dispensary and to inform the patients that if they desired to continue to consult their usual medical adviser they could only do this by joining the new dispensary service. The collector did not call on any one who was not already on the books of the medical practitioner in whose name he spoke.

There is, of course, a good deal of dissatisfaction caused by the mere fact that an accusation against the very men whom the British Medical Association and all the profession were pledged to support was allowed to pass by the penal committee. Yet the four medical officers who had resigned were summoned to appear before the General Medical Council, only to be told when they got there that the charge against them had been withdrawn. On the other hand, if the British Medical Association takes action against medical practitioners who are considered to have acted in a reprehensible manner it cannot even publish the fact. Thus it appears that among the medical men who in various parts of the country have taken service for such condemned institutions as the Coventry Provident Dispensary there are some who belonged to the British Medical Association. Consequently they have been expelled from the Association and there is a regular form notifying such expulsions and yet these have not been used. There is, it appears, no rule in regard to publishing the fact that a member of the Association has been expelled, therefore the Association has, I understand, been informed by its legal advisers that it would not be wise to publish the names of the members who have been expelled. In these circumstances I would recommend the British Medical Association to study the Statutes of the French Medical Syndicates. These French medical associations can not only publish a full record of what they do, but they can punish as well as expel their members if these do not observe faithfully the principles laid down in the deed of association. The punishment consists of a fine of from 16*s.* to £20 and the civil tribunals, when it is necessary to appeal to them, confirm and enforce the sentence pronounced by the medical jury of the medical union. Therefore, if this law applied to the British Medical Association any member of that body taking service under the Coventry Provident Dispensary or other similar institution could not only be publicly expelled but could be fined £20. Obviously there is great need of disciplinary sanctions in the medical profession of Great Britain.

Nevertheless, some progress is made, though the cause at Coventry received a great blow in the sudden death of Dr. T. A. Hird. This gentleman was the most popular of all the medical officers formerly attached to the Coventry Provident Dispensary and had far the greatest number of subscribers on his books. A very large proportion of them would have desired to follow him when he left the Provident Dispensary, but he died on the very eve of the day when he had to appear before the General Medical Council to answer the charge mentioned above. By means of a locum-tenent an attempt has been made to carry on the practice and his son was fully qualified a week or two ago. Nevertheless, the following would, of course, have been greater but for this most untimely death. As it is, however, about 8000 members have left the old Provident Dispensary and joined the new dispensary service. The success of the movement would have been greater still had there been a relief fund to fall back upon, for a sixth member of the Provident Dispensary's staff was willing to join the strike if a sum of £200 a year could be guaranteed, as he was too old to begin life over again. Offers were made and the sum of about £100 was forthcoming. 40 local practitioners would have subscribed on an average £2 a year, so as to draw one more medical officer away from the staff of the Provident Dispensary, and this fact alone suffices to show how that institution is considered by the profession; then a small sum could have been obtained from the British Medical Association, but it was quite impossible to raise £200 a year; therefore only five medical officers left the dispensary, though a sixth would have done so had he been younger and better able to support himself.

With the members who have left the Provident Dispensary and joined the new dispensary service, if there were no

arrears of payments, the medical staff would receive as net benefit two-thirds of the subscription. In other words, as matters now stand and when every subscription due is paid, the working expenses for the last quarter will not exceed one-third of the receipts. Further, the receipts during this last quarter, which is the third quarter during which the new dispensary service has been in existence, are the largest yet gathered in. Consequently the new institution is making progress. Nevertheless, the medical officers have lost several hundred pounds a year, and it is urged that a fund should be in existence to help the weaker members of the profession who are not in a position to make such sacrifices. But, of course, the time to create a fund of this description is when there is no struggle; it should be accumulated beforehand. To-day every new subscriber who comes in or who leaves the old Provident Dispensary to join the new dispensary service yields a larger profit than his predecessors because the initial expense is now covered. In the new service the patients all call at the surgeries of their medical officers, while in the old Provident Dispensary they have to go to the building belonging to that institution and have to wait there as at the out-patients' room of a hospital. After they have seen their medical officer the drugs are dispensed in the same premises. The new service has found it expedient to establish a dispensary of its own, for which each of the four medical officers had to subscribe £25. It employs a qualified dispenser, buys its own drugs, and is thus better able to control them, and they cost less. Now, if it had more patients this would occasion no further outlay in rent and salaries and the only extra cost would be the time given to them and the drugs which they would actually consume. Thus, it is thought that now that the initial expense and the salaries have been met a thousand more subscribers would only cost about £30 or £40 a year, while they would bring in £266. The number of subscribers is likely to increase, as little by little the public learn better to appreciate the fact that their true interests are identical with those of the medical profession. The real object is to prevent the reduction of medical attendance to a hurried and insufficient examination shortened so as to meet the smallness of the pay rather than the requirements of the patient. That is why the medical profession protests against hospital abuse as well as the abuse of club practice. The struggle with the Coventry Provident Dispensary is calculated to increase the abuse prevalent at the Coventry Hospital. The medical staff of the Coventry Provident Dispensary are not met in consultation by the other local members of the profession. Consequently, several of their patients, when they found that they could not get a second opinion, left the Provident Dispensary. Naturally, and so as to avoid this, such cases will if possible be sent to the hospital and thus the difficulty of not being able to call in a consultant will be avoided by increasing the sum total of hospital abuse.

Some members of the committee of management of the Provident Dispensary are also on the hospital committee of management. This places the hospital medical staff in an awkward position, for they are working under the authority to some extent of men concerned in an institution which is repudiated and condemned by the profession to which they belong. A subcommittee was appointed at the hospital a short time ago to ascertain what abuse existed and how it could be remedied. This committee consists of two medical men, two representatives of the workmen subscribers, and two or three members of the committee of management. The committee met once or twice and then adjourned for a month so that specific cases could be brought before it. This has now been done. Also the division of the British Medical Association passed a resolution bearing on the subject and sent it to the subcommittee. The number of hospital patients is so enormous that one single member of the honorary staff is sometimes expected to see no less than 60 patients in an hour and a half. Then there are some men who have seized the opportunity afforded by the dispute to leave the old Provident Dispensary and not to join the new one, trusting wholely to the hospital should they fall ill. As the workers' subscriptions to the hospital increase yearly they think that they have a right to walk in and to receive whatever sort of medical treatment they may need. Thus the limit of efficiency of the hospital has long been passed by the excess of patients attending, and the dispute with the Coventry Provident Dispensary can only tend to increase this state of affairs. On the other hand, it is something to know that this latter institution has been hardly hit and that the abuses which it represents cannot continue with impunity. Moreover, the medical practitioners who have inflicted this blow though they have also lost a considerable portion of their income are gradually winning it back. In any case, what they have now is really theirs and will count as an asset when they want to sell their practices, whereas before they could not sell their posts on the Provident Dispensary, for it was not certain that the services of their successors would be accepted by that institution. But better than all these material considerations is the fact that the five medical officers who have made these considerable sacrifices are now acting in full harmony with their profession and hold an honourable position in its ranks.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Territorial Medical Corps (Manchester).

THE Royal Territorial Medical Corps (Manchester) has enlisted about 250 men who have generally joined for one or two years. But the officers of the corps have to enlist 725 men, to provide the staff for a general hospital, which will, according to report, be set up on mobilisation, and sanitary squads. In many respects the new arrangement of the medical service is an expansion of the medical service of the Volunteers. Thus the bearer companies and field hospitals of the Volunteer organisation become consolidated into field ambulances for cavalry and infantry and there are to be three of them for each division of the Territorial Force. New features, however, appear. There will be hospitals, stationary and general, the staffs of which will consist of civil hospital physicians and surgeons who, though "possessing no organic connexion with the divisions, will be raised in the same territorial area should the local staffs of the civil hospitals coöperate for work in time of war in the vicinity of their own civil hospitals." Also during operations for home defence the coöperation of medical men engaged in preventive medicine will be sought. In time of war they are to assist with their advice should troops be massed in the vicinity of their own spheres of work. Professor G. A. Wright has been appointed administrator-in-charge of the general hospital and Mr. W. Thorburn is the registrar and secretary. The unit for this hospital is to be 43 men, and the commanding officer wishes to get some of the Manchester University students and pupil teachers in elementary schools to join. Members of this unit will be required to attend one of the large military hospitals for training for "eight or 14 days in the year, where they will receive instruction in nursing, &c." There has been a cordial response to the call of the authorities by all the principal men on the staffs of the Royal Infirmary, the Ancoats Hospital, and the Salford Hospital to serve the general hospital on mobilisation, as would be expected by those who know them. 99 men are to be enlisted for the sanitary squads whose duty will be to supervise the sanitary arrangements in the field and to look after the water-supply. This fragmentary sketch of the organisation required in constructing even this small portion of the scheme of the army as recently elaborated shows how desirable, or rather how necessary, it is that the business should be put in hand during the days of peace.

Mersey and Irwell Committee.

The meeting of the Mersey and Irwell committee on April 7th was marked by the resignation of the chairman, Sir John Hibbert, on account of his health. He has held the position for many years. Even if his health had continued good his advanced years would have entitled him to claim relief from public labours. In his letter of resignation he summarises the work that has already been done, and though, when the Mersey and Irwell are looked at or smelled, the purification remaining to be accomplished seems still very great, while the visible and olfactory evidences of noisome filth seem apparently much as they were years ago, it must be acknowledged that the committee has always been at work and that some good has been done. It has sometimes been thought that more energy might have been shown, but, as Sir John Hibbert says, much has been done for carrying out the powers entrusted to it, and "perhaps under the special circumstances of the specially foul state of the streams in the district much may have been left undone. Our motto has been the Latin proverb 'Hasten slowly,' thus giving both manufacturers and local authorities time for carrying

out the necessary works required of them." Of the 94 local authorities within the district, 80 urban and ten rural districts have works in operation, leaving two urban and one rural district with no scheme, and one urban district with a scheme under consideration. The enormous amount of consideration required before these schemes are allowed to escape from review is something to marvel at. The two rivers have on their banks 393 manufacturers, of whom 296 have efficient works, while 83 are in the unsatisfactory position of having works which are not efficient. 14 only let their effluent go without treatment, and there seem to be 26 works where, unless they have been closed, the effluent goes into the sewers. Our old opprobrium, the Gore Brook, receives, and well deserves, special mention, for "there is still the foul state of the Gore Brook to be remedied," but Sir John Hibbert knows that Gorton is to be amalgamated with Manchester and trusts "that this long-standing nuisance will at last be remedied." Though many think that more might have been done to make our streams a delight to the eye instead of a trial to the nose, it would not be fair not to give the testimony of the chief inspector that "the improvement of the rivers is evidenced by the appearance of the river bed, by the continued and increasing use of river water by the manufacturers, and particularly by the reduction in the number of complaints." Unfortunately it is not often that the eye can penetrate to the river bottom. The services of Sir John Hibbert, his kindness and urbanity, were warmly acknowledged. Mr. D. B. Hewitt of Davenham was elected to the chairmanship, and as he is a retired member of our profession he will understand the difficulties and also the possibilities of river purification.

"Potted Lobster."

A Southport firm was prosecuted the other week at Blackpool and fined £3 and costs for selling potted lobster "not of the nature and substance demanded by the purchaser." This stuff was said to have contained only 25 per cent. of pure lobster, while there were 50 per cent. of foreign fish. Colouring matter and a preservative were said also to have been introduced. A member of the firm denied the statement of the analyst that it contained bread but said that it did contain ground rice. He stated that formerly the label described this compound as a mixture, but when it was explained to him that he was the only one in the trade who did so he stopped it, "though he had no intention to defraud." However, he said that he had made provision in the future to fully explain on the label that the contents of the pot were lobster, choice fish, and other things.

April 21st.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Lord Mayor of Liverpool and the University of Edinburgh.

AMONGST the recipients of the degree of Doctor of Laws at the spring graduation ceremony which took place at the University of Edinburgh on April 10th was Dr. Richard Caton (Lord Mayor of Liverpool). Sir Ludovic Grant, in presenting Dr. Caton, said that he possessed a triple qualification for the honorary degree of LL.D.—his services to medical science and medical education, his archæological achievements, his public activity and civic prestige. Dr. Caton was an alumnus of the University of Edinburgh. He was one of the band of labourers whose strenuous exertions were instrumental in calling into existence the University of Liverpool and he himself discharged the duties of professor of physiology for many years with conspicuous success.

The Dutton Memorial.

The fund being collected as a memorial to the late Dr. J. Everett Dutton, who died two years ago when on an expedition for the Liverpool School of Tropical Medicine, is now approaching completion. The object of the promoters of the memorial is to secure the means of endowing an additional chair in the Liverpool School of Tropical Medicine, to be called the "Dutton" chair. More than two-thirds of the required amount have been already promised, the activity of Sir Rubert Boyce, the indefatigable professor of pathology at the University, being largely responsible for this happy result. Dr. Dutton well deserves a permanent memorial at the University of Liverpool. He gave his life in the service of science and humanity and his achievements will ever remain one of the traditions of the Liverpool School of Tropical Medicine. The memorial to him will take the form of additional facilities for carrying on effectively the study of tropical diseases.

Closing of the Park Hill Civic Hospital.

The chairman of the hospitals committee (Mr. John Utting) at the recent meeting of the city council made the announcement that the Park Hill hospital for infectious diseases had been closed. The hospital contained 350 beds and they were all now out of commission. The committee, however, desired to keep a certain number of the beds in a state of constant preparedness. For that purpose it was retaining six officers in the hospital. They would have certain duties to discharge whilst the hospital was empty and they would be ready to take in any number of cases up to 40 should any sudden emergency arise. It was proposed to give the gentleman who had been the visiting physician a retaining fee, so that they might have his services when required. At present there were, fortunately, no small-pox cases in Liverpool, and the small-pox hospital was just now being used as a convalescent institution. As long as that continued they need not call upon the Park Hill hospital again. Mr. Utting regarded the new arrangement as a very valuable insurance against any misfortune which might befall the health of the city.

April 21st.

NEWCASTLE-UPON-TYNE.

(FROM OUR OWN CORRESPONDENT.)

The College of Medicine.

THE University Easter term begins on Friday, April 24th. The registration of students at the College of Medicine commences on the 22nd and the books remain open until Saturday, April 25th. The first lectures of the summer session will be given on Monday, the 27th. In former years the summer session began on May 1st but in view of the alteration of the dates of the examinations it has been found necessary to antedate the commencement of the summer session. On the suggestion of Professor G. R. Murray a short course of post-graduate lectures, especially intended for medical practitioners, was given last summer on The Principles of Bacteriology and Immunity, with special reference to their application in the ordinary routine of medical practice. The number of practitioners who attended was so encouraging that a similar course will be given during the coming summer on Tuesday afternoons at 4 P.M., when it if hoped that the attendance will again be such as to warrant the authorities in making this a regular course of instruction.

Anthrax in Newcastle.

Some meat recently sent to the Newcastle market for sale as food—"subject to inspection"—was found on examination to be infected with anthrax. Inquiry at the farm whence the meat had been sent showed that there was a serious outbreak of anthrax among the beasts and other animals kept there. Several beasts, some pigs, and a pony were all found to be suffering from anthrax and some of them subsequently died from the disease. In this particular instance, happily, no further cases, either in man or animals, have been traced to the outbreak. In similar circumstances some few months ago three cases of anthrax in man were directly traced to an infected animal which had died suddenly. Two butchers who dressed the carcass contracted the disease, one of whom died, and a woman who bought some of the meat also suffered but recovered. During the first three months of this year ten cases of anthrax in bovine animals were notified in the county of Northumberland, and a study of the incidence of the disease points to "cake," which is largely used as a foodstuff, as the cause of the disease. After each case is notified the farm is visited by the chief veterinary inspector for the county and the burial of the carcass is carried out according to the instructions contained in the order of the Board of Agriculture under his immediate supervision. The efficiency with which the work is done is proved by the fact that it is very rarely indeed that a second case of the disease occurs on the same farm. In favour also of the view that the disease is imported is the fact that the cases are distributed all over

the county and are not confined to one district. There would seem to be room here for a very useful investigation on the question as to whether any relation does, in fact, exist between the use of "cake" and isolated cases of anthrax. The Board, in a memorandum which is frequently circulated, offers to make an examination of food-stuffs where suspicion can be definitely traced to "cake" or other food as the cause of the disease. This is difficult to establish in any particular case, but by collecting information as to the use of "cake" on farms where cases of anthrax have occurred it would seem profitable, if *prima-facie* evidence were found to incriminate "cake," to inquire into the circumstances of the manufacture and methods of transport of "cake."

Sanitary Committee of the Newcastle Corporation.

The estimates of expenditure for the year ending March 31st, 1909, submitted by the sanitary committee to the city council totalled £51,020. The expenditure on rate account is estimated at £32,512, against £27,338 for 1907–08 and £26,383 for 1906–07. The estimated increase of expenditure over 1907–08 is therefore £5174, against an increase of £955 in 1907–08 as compared with 1906–07. Of this total increase of £5174 rather more than two-thirds, £3462, is absorbed by the increase in cost of the city isolation hospitals and is accounted for by the fact that at Walker Gate Hospital accommodation for an additional 74 beds over and above 105 at present in use has been provided, and it is hoped that this further accommodation will be almost immediately available for the reception of patients. It was not surprising, therefore, that the discussion on the estimates was chiefly directed to criticism of the cost of hospital administration. The estimates had already been severely handled in committee—in fact, consideration of the estimates had been adjourned four times on the initiative of Alderman Flowers "in order that they might go carefully into them, to see whether they could reduce them," and the result of this prolonged deliberation was that Alderman Flowers was able at the meeting of the council warmly to defend the estimates. During the course of the discussion in the council comparison was made between the relative cost of maintaining the workhouse infirmary and the infectious diseases hospitals, and it was shown that the cost of administration of the latter, where only infectious diseases were admitted, was not very much greater than the cost of administration of the workhouse infirmary, where no zymotic diseases were taken. The cost per bed in Newcastle (£411) also compared favourably with that of larger hospitals—e.g., in Liverpool £415 and in Edinburgh £559 per bed. Considerable argument also arose concerning the large numbers of the staff for the number of patients in hospital, which at that moment happened to be abnormally small. But the difficulties and the cost of administration of an infectious diseases hospital where several different diseases are treated is always a stumbling-block to those who have had no practical experience of fever hospitals. In the result the estimates were reduced by £4000 and this very probably largely in view of the immediate outlook in the main industry of the Tyne and in response to the appeal of Sir W. H. Stephenson that spending committees should bear this rather depressing outlook in mind and so arrange their expenditure that the rate should not exceed that of last year —viz., 4*s.* 11*d.* in the £. The decision of the council will no doubt be somewhat disappointing to the members of the sanitary committee and their able and energetic officer of health, Dr. Henry E. Armstrong, for it is universally admitted that Newcastle is in the proud position of being at least among the foremost sanitary administrations of the country; but, at the same time, they have the satisfaction of knowing that the thanks of the whole community are due to them for their wisdom and foresight in matters of preventive medicine, as well as the further satisfaction of knowing that theirs is not the only committee whose expenses have had to be curtailed in view of the present state of affairs.

April 20th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Glasgow Royal Infirmary: Post-graduate Classes.

DURING the last two years carefully arranged post-graduate courses have been conducted at the Glasgow Royal Infirmary and have attracted practitioners not only from the city and neighbourhood of Glasgow but also from considerable distances. This year arrangements have been made for two separate courses: the first, mostly devoted to special subjects, will begin on Friday, May 1st, and will continue during the month; the second will commence at the beginning of September, the syllabus of which has still to be arranged. The following subjects will be included in the first course: Clinical medicine, by Dr. G. S. Middleton and Dr. W. K. Hunter; Clinical Surgery, by Mr. Henry Rutherfurd and Mr. A. N. McGregor; Surgical Diseases of the Urinary Organs, by Mr. David Newman; Clinical Examination of the Urine, by Dr. John Henderson; Gynæcology, by Dr. G. B. Marshall; Diseases of the Ear, by Dr. J. K. Love; Diseases of the Eye, by Mr. John Rowan; Diseases of the Skin, by Dr. A. Morton; Diseases of the Throat and Nose, by Dr. R. Fullerton; Gynæcology, by Dr. W. D. Macfarlane; Operative Surgery, by Mr. P. Paterson; and Bacteriology, by Mr. David McCrorie. Details of the course have appeared in the advertising columns of THE LANCET, and a syllabus may be had by applying to the superintendent of the infirmary, who will be pleased to supply any further information. As many of the classes are limited to a fixed number of members, practitioners desirous of joining any of the classes are recommended to apply for enrolment as early as possible.

Aberdeen Parish Council and Medical Appointments.

At the last monthly meeting of the Aberdeen parish council held on April 14th it was agreed to raise the resident medical officer's salary from £80 to £90. A motion that vaccination defaulters should not be prosecuted was defeated by a large majority. In connexion with the appointments of the district medical officers, who have hitherto held office *ad vitam aut culpam*, a motion was brought forward—

That at the ordinary meeting on April 14th the parish council proceed to consider, and if thought fit to alter or vary, the appointment of all or any of the district medical officers.

It was also moved that, with the view of establishing a rotation, the senior medical officer should be now asked to retire and this ultimately became the finding of the meeting. The senior medical officer will now be asked to resign in accordance with the decision of the council. Dr. Clark, with a view to qualifying for the position, then intimated his resignation as a member of the parish council.

The Health Report for Keith.

Dr. R. S. Turner, medical officer of health of Keith, has just issued his report to the town council for the year 1907. Reference is made to the defective water-supply and the insanitary condition of many of the ash-pits and disused drains. Nothing has been done during the year to prevent the pollution of the Isla by trade effluents and the sewage purification scheme seems to be at a standstill. The death-rate has been 20·4, as compared with 19·4 for 1906, the increase having been chiefly in persons over 60 years of age.

The Public Health of Peterhead: Annual Reports.

In the course of his report to the Local Government Board the medical officer states that the birth-rate and death-rate are respectively 34·6 per 1000 and 19·5 per 1000 of the population. The mortality of children under one year is slightly increased for this year, the rate being 152·8 per 1000 births, in comparison with 149·8 per 1000 births for last year. On the periods 1–5 years, 5–15 years, and 15–25 years there is also a slight increase, as also in the mature and post-mature periods, on the preceding year. There have also been a good many deaths from zymotic causes, but the mortality from tuberculous disease is considerably less. Dr. Norman Davidson refers to the scarcity of houses for the working classes and regards the situation as one demanding serious attention. Certain parts of the town are seriously congested and overcrowded both as to the poorer class of house and better-class workmen's houses. For some time past the local authorities have recognised the need for improvement and have so far got a report from the burgh surveyor and town clerk regarding the advisability of erecting workmen's houses under the Housing of the Working Classes Act, 1890. In the sanitary inspector's report the facts regarding the new water-supply are noted. Great care is being taken to trace all springs to their sources and to exclude all doubtful water. Although filtration was not anticipated to be necessary, since the epidemic of enteric fever the question has been under consideration. New water mains are being largely substituted for the old and inadequate mains.

Forehill reservoir is being enlarged in capacity from 2,000,000 gallons to 6,000,000 gallons. Grange reservoir will remain untouched and will probably not be used for the burgh supply, as it is intended to provide a balancing clean water tank to hold 300,000 gallons. The tank will be covered to prevent contamination of the filtered water. The estimated cost of the whole works is £35,900. It is also proposed to expend a large sum of money on the main drainage of the town. A number of the sewers are built of stone and are in a most unsatisfactory condition. For these it is proposed to substitute fireclay sewers, and while much of the drainage of private property has been overhauled during the year there is still much to be done in this respect. The sanitary inspector also declares that, in spite of adverse circumstances, the town has enjoyed a hitherto unprecedented prosperity.

Death of Dr. John Reid.

On April 14th the death occurred at Clifton House, Dinnet, of Dr. John Reid, a man who was held in high esteem in the district. Dr. Reid, who was a graduate of the University of Aberdeen, was born at Logie Coldstone in 1836. At the age of 30 he was appointed medical officer to the Assam Tea Planting Company. He held this appointment for nine years and then took over the Deesang Tea Planting Company which he carried on for a number of years with marked success. Returning to this country he resolved to spend the declining years of his life near the spot where he was born and brought up, and there also he died. Dr. Reid was twice married and is survived by his widow but has left no family. The funeral took place in Coldstone churchyard in the presence of a large and representative gathering.

April 21st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Meath Hospital and County of Dublin Infirmary.

THE annual meeting of the supporters of the Meath Hospital and County of Dublin Infirmary was held on April 13th in the board room of the hospital. The financial report showed a balance against the hospital at the close of the year of £6610. The hospital has special claims on public support, for it is actually the first institution in which modern clinical teaching was initiated, its pioneers being Dr. Robert Graves and Dr. William Stokes. The cosmopolitan reputations of those pioneers has been "modernised" in the present generation by those of the present senior surgeon and senior physician of the institution—Sir Lambert Hepenstal Ormsby and Sir John William Moore—who have respectively contributed volumes of corresponding originality of scientific attainment and of mastery of scholarly exposition to the libraries of their own specialties. And as the former of these gentlemen forcibly put it in moving the adoption of the report, the institution has for 154 years been giving help to the suffering poor without distinction of class or creed, while the result of modern advances in surgery by accelerating cure enabled it to benefit a much larger number. In the somewhat stormy period of the introduction of antisepsis Sir Lambert Ormsby was, as is well remembered, one of the most earnest and intelligible of the speakers at the reiterated discussions. So that in many departments the Meath Hospital occupies a position which is unique among Dublin institutions.

Lady Governor of Richmond Asylum.

Mrs. MacDowell Cosgrave, the wife of a leading physician of Dublin and member of the professorial staff of the school of surgery of the Royal College of Surgeons, has been elected to the board of governors of the Richmond Lunatic Asylum. This is the first instance of the admission of a lady to the membership of that body or, I believe, to that of any corresponding body in Ireland. The election is an extremely popular one; the choice has been made by the municipal corporation, to which the energy and judgment of Mrs. MacDowell Cosgrave had become thoroughly familiar during a series of years as guardian of the North Dublin Union. The excellent quality of her aims and results during a prolonged period of Poor-law guardianship is well proved by the fact that these have won the confidence of a body of the members of which the great majority have been opposed to her both in creed and in politics. So that while the new lady governor is to be congratulated on her election our municipal corporation is to be congratulated on a display of liberality.

Women's National Health Association of Ireland: Its Inaugural Meeting.

On April 14th the first annual meeting of the Women's National Health Association of Ireland was held under the presidency of Her Excellency the Countess of Aberdeen. There were gathered together the representatives of all the important centres of Ireland, a truce being declared between opposing classes and creeds for the general betterment of the victims of disease and poverty. The association met in Leinster House, Kildare-street. Her Excellency took the opportunity of announcing the tangible results which had already been attained by the efforts made in connexion with the Tuberculosis Exhibition, laying stress upon the following points: 1. Everywhere the increase of open windows is remarkable and that, too, in the poorest parts of the towns visited. 2. Applications from tenants for alterations, so that windows and skylights may open without letting in the rain, are becoming common. 3. A great decrease in the habit of spitting is noticeable. 4. In some places various steps are being taken to secure a purer milk-supply. To mention one place in particular—Armagh—those supplying milk there have agreed to have all their herds submitted to the tuberculin test; and at the large lunatic asylum there a resolution has been passed to the effect that no milk will be accepted there unless it comes from herds so tested. 5. In several places the Poor-law guardians are considering the addition of inexpensive annexes or the setting apart of special wards for advanced consumptive cases. 6. In some places there is a movement for erecting inexpensive cottage sanatoriums. 7. Nurse visitors for cases of consumption have been established in three places and are being considered in others. These evidences and the eagerness of the people to learn more, to come to further lectures, and to talk over health matters, show how ready the soil is for further seed-sowing. It would appear that few crusades against disease have had so promising a first year's record, and there is every prospect that the enthusiasm and persevering energy of Her Excellency will secure a continuance of corresponding success while she retains the leadership. As regards the question of infant mortality Lady Aberdeen said: "We are only beginning our work in connexion with infant mortality, but several of the branches intend taking it in hand this summer and we would specially draw our members' attention to the success which has attended the experiment made in Belfast in one district by the establishment of a system for visiting newly made mothers or babies' clubs, on the line of the School for Mothers at St. Pancras, where young mothers are invited to come and to bring their babies for advice as to their management, where the children can be weighed, and where great good can be done in preventing wrong feeding and in preaching the pre-eminent value of breast-feeding. Irish mothers, happily, adhere to this practice more than most modern mothers, and it must be our aim not only to confirm them in this, but to see to it that the mothers themselves are properly nourished both before and after the birth of their children. You will notice that ere long we hope to have a Pasteurised milk laboratory here in Dublin, through the kindness of Mr. Nathan Strauss, and we shall hope to report satisfactorily regarding this later on. Please make people understand that we, as an association, hold that the only ideal milk is that which comes undiluted, uncontaminated, from a perfectly healthy cow, housed in a well-ventilated cowshed, and milked by clean hands. But we equally believe that such a supply of milk is practically an impossibility in our large towns at the present time. And so we advocate a careful system of Pasteurised milk as a makeshift to save our children from tuberculosis, summer diseases, and many other troubles. Meanwhile, let all our branches study the new Dairy and Cowshed Order issued by the Local Government Board, which comes into force on May 1st and which should do much to secure a purer milk-supply if properly enforced."

Literature of the Campaign against Tuberculosis in Ireland.

The issue[1] of Professor W. Osler's opening lecture at the Tuberculosis Exhibition held in Dublin, October, 1907, is but the preliminary step towards publication of the series of

[1] This has already been published in pamphlet form by the Women's National Health Association of Ireland.

lectures which were delivered in connexion with the exhibition, and which is to be carried out by Messrs. Maunsel and Co., 96, Middle Abbey-street, Dublin. The collection is to appear in three volumes. Of these, the first volume has been promised to be "ready early in April" and contains a preface by Her Excellency the Countess of Aberdeen, an account of the opening ceremony of the exhibition, and the following lectures: What the Public Can Do in the Fight against Tuberculosis, by Professor Osler; Tuberculosis in Ireland, by Sir Robert Matheson; On the Bearing of Tuberculosis on the Conditions of Ireland, by Mr. R. F. Tobin, F.R.C.S. Irel.; Why Tuberculosis is so Common in Ireland, by Sir John W. Byers; Some Aspects of the Tuberculosis Problem, by Dr. Lawson; on the Economic Aspects of Tuberculosis, by Professor J. A. Lindsay; and a catalogue of the above exhibition. The second volume of the series will deal with the sanatorium and dispensary treatment of the disease, &c.; while the third will be made to include a number of miscellaneous lectures bearing on the subject, inclusive of one dealing with Tuberculosis in the Lower Animals. The publication of the series should have a most beneficial effect in educating the public in their necessary duties in the campaign against tuberculosis.

A Memorial to the late Dr. Conolly Norman.

A meeting was held recently in the Royal College of Physicians of Ireland to consider the question of erecting a suitable memorial to the memory of the late Dr. Conolly Norman. The President of the College presided. Also present were Sir Henry R. Swanzy, President of the Royal College of Surgeons in Ireland; Dr. J. Little, Sir Francis R. Cruise, Sir Thornley Stoker, Dr. J. Magee Finny, Dr. W. R. Dawson, Dr. P. W. Maxwell, Dr. J. O'Conor Donelan, Dr. A. W. W. Baker, Dr. E. L. Fleury, Mr. H. M. Cullinan, Rev. M. Taylor, Mr. J. R. O'Connell, LL.D., and Dr. Carroll. Dr. Little and Sir Francis Cruise expressed sympathy with the object of the meeting. Sir Henry Swanzy paid tribute to the memory of the late Dr. Conolly Norman. After some discussion an executive committee was appointed. Dr. Dawson and Mr. O'Connell were appointed treasurers, and Dr. Donelan and Dr. Fleury secretaries.

The University Question: the Belfast View.

Mr. Birrell's Bill being now printed is undergoing very critical discussion in Ireland, and while there are the most marked divergencies of opinion on many of the details as to the two universities, and still more as to the line of settlement adopted by the Chief Secretary, all are agreed that the finances are not at all sufficient. Naturally, the President, professors, and lecturers at Queen's College, Belfast, are well satisfied, as is shown by the following motions adopted on April 7th:—

1. That we desire to express our extreme gratification that an earnest attempt is being made to settle the Irish University question on a permanent basis. 2. That we rejoice that the provisions of the Bill insure that the proposed new University in Belfast shall stand upon the same broad, non-sectarian, and purely academic basis on which Queen's College, Belfast, has worked since its establishment; that the University shall be free from religious tests and from all ecclesiastical control; that it is to be a free and completely self-governing university; and that public bodies, benefactors, professors, graduates, secondary teachers, women, and students will be represented on its governing body. 3. That, in our opinion, the elevation of this college to university rank will not only add much to the dignity of Belfast, making it a university city, but will give a great impetus to higher education here and throughout Ulster; that it will stimulate both teachers and students to show themselves worthy of the higher status now proposed to be granted by the Legislature; that it will excite much greater public interest in the college and attract an increasing amount of public support from local benefactors, and that it will largely stimulate literary and scientific research and promote the diffusion of knowledge and culture throughout the north of Ireland. 4. That a copy of these resolutions be forwarded to the Chief Secretary and to the press.

On the other hand, the friends of Magee College (which is the only constituent college of the Royal University not recognised by the new Bill) are up in arms, and at the closing meeting of the session on April 8th the President protested very strongly against Mr. Birrell's treatment of that institution. Then one of the visitors of Queen's College, the Right Hon. Thos. Sinclair, D.L., D.Lit., the leading layman of the Presbyterian Church, has written a letter to the papers denouncing the Chief Secretary's Bill and stating that he does not think "a more retrograde and mischievous proposal has yet been made"; and at a meeting of the executive committee of the Royal University Graduates Association held on April 9th it was unanimously decided to oppose Mr. Birrell's University Bill and a subcommittee was appointed to draft a statement and to consider further action. The corporation of Cork has passed a resolution expressing its opinion that no settlement of the question can be considered final or satisfactory which does not provide Cork with independent university powers.

Belfast Ophthalmic Institution.

At the annual meeting of the friends of this hospital, held on April 13th, it was reported that during the past year there were in the extern department 1372 new eye patients and 703 suffering from affections of the nose, ear, and throat, while in the wards 173 patients were treated. There is a balance against the hospital of £150, and the total subscriptions received were £93. The medical staff is anxious for internal alterations and improvements in the hospital, which will cost about £500. It is hoped that an effort will be made to carry out these very necessary improvements and to free the institution from debt.

Benn Ulster Eye, Ear, and Throat Hospital.

At the annual meeting of the supporters of this hospital held on April 10th, it was reported that 354 patients had been treated in the wards during the past year and 2797 in the extern department. Financially, the debt on the hospital has been reduced to £194. 170 operations were performed under general anæsthesia, the latter including 54 operations for cataract.

The Proposed Dispensary for Consumption in Belfast.

A communication was read at the weekly meeting of the Belfast public health committee on April 9th from the Local Government Board, pointing out that it could not approve of the proposed arrangement with the Forster Green Hospital for the establishment of a dispensary for the treatment of consumption, as it had been advised that it could not legally do so. The Board suggested to the committee that it should if possible arrange with the committee of management of the hospital to place ten additional beds at its disposal, and it was resolved that the chairman should be authorised to negotiate with the hospital authorities with the view of acting on the advice of the Local Government Board.

The University Bill.

At a large meeting of the Belfast National Teachers' Association held on April 11th a motion was unanimously carried "emphatically protesting against the proposals in the Chief Secretary's Irish University Bill which exclude extern students from University examinations and which prohibit them from obtaining University degrees, as has been the custom for upwards of a quarter of a century." At a meeting of the higher education committee of the Presbyterian Church in Ireland held on April 15th it was agreed to request the Moderator to call a special meeting of the members to consider the proposed legislation of the Government with regard to University education in Ireland. The importance of this meeting lies in the fact that in Queen's College, Belfast, as is shown by the following figures for 1906–07 (the last available statistics), the Presbyterian students were actually 239 out of a total of 390, and consequently the Presbyterian Church is deeply interested in the proposed scheme.

Down District Asylum.

Mr. Michael J. Nolan, medical superintendent of the Down District Asylum at Downpatrick, has had his salary increased by the committee of management from £700 to £900 per annum.

Waste-paper Nuisance in Belfast.

The public health committee of Belfast, with a view to improve the appearance of the city, by preventing the scattering of waste-paper over the thoroughfares, has decided to adopt the plan used in Glasgow—that is, to supply canvas bags, in which the employees of shops are requested to place papers to be called for by the health authorities, instead of, as now, the papers being placed in a box or basket on the footpath along with the ashes. Householders are also requested to ask their servants when sweeping from the house door to the footway and on to the street to pick up pieces of paper and to burn them in the kitchen range instead of sweeping them on to the street.

Death of Mr. William Aickin, M.D. R.U.I.

A member of the medical profession, well-known for many years in Belfast, died at the age of 74 years, at his residence, Sandown Park, Knock, co. Down, on April 16th. He had been in practice in Belfast up to four years ago, when he retired owing to failing health. Dr. Aickin, who was the

son of Dr. J. B. Aickin of Belfast, studied at Queen's College, Belfast, and graduated M.D. of the old Queen's University in 1855 and in 1856 he became M.R.C.S. Eng. He practised in Belfast where he succeeded his father as surgeon to the Royal Irish Constabulary. He was also police surgeon and medical attendant to the members of the Fire Brigade. Dr. Aickin leaves a widow and family of three daughters and two sons.

April 21st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Stomatitis due to Grey Oil.

AT a meeting of the Hospitals Medical Society held on March 20th M. Gaucher and M. Bory brought forward eight cases of mercurial stomatitis due to the use of grey oil. Of these eight cases six proved fatal. The stomatitis began just like an ordinary stomatitis but in all cases on the right side; it then rapidly became of a gangrenous nature and mercurial necrosis of the maxilla occurred, preceded by necrosis of the submaxillary tissues. The cause of death was either asphyxia, despite the performance of tracheotomy, or else a general septic infection. The doses given were, it is true, large, for they amounted to ten centigrammes, but even larger doses of mercury have been given without evil result. M. Queyrat pointed out that the quantity of grey oil injected was an important point and so also was the technique of the injection. The fact that nodules persisted after the injection ought to have given warning that further injections should not be made. The treatment which he considered most successful in such cases was a daily injection of 0·05 cubic centimetre of colloidal platinum as well as an injection of isotonic sea-water. Further, before commencing the treatment the state of the mouth and of the renal functions should be carefully investigated, and the flask containing the grey oil should be well shaken so that the mercury contained in it should be uniformly distributed.

The Academy of Medicine.

On April 7th the Academy of Medicine nominated M. Dastre, already a member of the Academy of Sciences, as member in the section of anatomy and physiology.

A Hospital Drama.

On April 13th Dr. Civel, physician to the Civil Hospital at Brest, was seeing his patients, when one of them, aged 63 years, suddenly drew a six-chambered revolver and fired at him. The bullet missed Dr. Civel but found its billet in the right elbow of an old man who was in the room. The man tried to fire again but Dr. Civel grappled with him and succeeded in disarming him; the excuse of the assailant was that Dr. Civel had failed to cure him.

Obituary.

The Paris Faculty of Medicine has recently suffered severe loss by the death of two of its most eminent members, Professor Terrier and Professor Cornil. Professor Terrier, who died on April 8th, aged 71 years, was elected an *agrégé* professor of surgery in 1872. Later as surgeon to the hospital he became well known to the younger generation of students by his completion of Jamin's classic Handbook of Minor Surgery. He became a member of the Academy of Medicine in 1890 and professor at the Faculty in 1893, while he made the Bichat Hospital, at which he worked, a school of surgery and a centre of teaching the influence of which was very great. As director of the *Review of Surgery* he published, either alone or in collaboration with his pupils, a large number of works dealing with almost every branch of that art, more especially dealing with the surgery of the intestine, the stomach, and the liver, for which he had a universal reputation. He was a man of the highest integrity and of marked uprightness of character, though perhaps a little unbending. Four days after the death of Professor Terrier Professor Cornil passed away. He died on the evening of April 12th at Mentone, where he had been staying for some weeks with a view to re-establish his health, and with his death there passed away one of the greatest masters of pathological anatomy and of microscopical science. He was born at Cussey, in the department of the Allier, in 1837, and became an *agrégé* of the Faculty of Paris in 1869. He was physician to the hospitals and a member of the Academy of Medicine and in 1882 he succeeded Charcot in the chair of pathological anatomy. He was closely connected with Gambetta and was at first Deputy and then for 18 years a Senator for his native department of the Allier. At the last senatorial elections he was not again nominated and last year he was put on the retired list which affected him profoundly. This event, which coincided with his non-election to the Institute, was the signal for the decline of his health. His published work was considerable. His manual of "Pathological Anatomy," published in collaboration with Professor Ranvier, is acknowledged as a universal authority. He also published a treatise on "Bacteria" in collaboration with Dr. Babès, a treatise on "Diseases of the Kidney" in collaboration with Dr. Brault, and a number of other works of which I may mention one in collaboration with Professor Chantemesse on "Pneumo-enteritis in the Pig" and others upon "Metritis" and upon "Syphilis." His later works, which deal with diseases of the bones and cartilages, were published in collaboration with his pupil, Dr. Coudray, and at the time of his death he was bringing out a work on "Mammary Tumours." He was President of the Anatomical Society and was the first President of the International Association of the Medical Press. In the Senate he introduced the Bill for the Protection of the Public Health. He was the type of the kindly *savant* and an untiring worker; not a day of his life went by of which he did not spend many hours in his laboratory at the École Pratique, where he gave advice to all who sought it with exquisite courtesy.

A Workman's Compensation Act.

During the week ending April 11th there was a meeting of a commission, originally appointed in 1905, composed of representatives of the medical profession, of pharmacists, of trade unions, of employers' associations, and of insurance societies. The meeting was held at the Ministry of Labour and the matter under consideration was the tariff of fees due to medical men and pharmacists in the case of accidents to workmen. After a lengthy discussion, and following on certain observations made by the representative of assurance and provident societies, the commission came to the conclusion that the most efficacious way of safeguarding the free choice of a medical attendant for the victims of industrial accidents and of avoiding the piling up of expenses which might be a heavy tax upon labour was the following. It was proposed to establish, after consultation between the medical profession and the insurance societies, a normal tariff for medical expenses drawn up according to the different categories of accident. In the case of exceptional accidents, however, this tariff should be capable of being modified in either direction, and the amount of increase or reduction should be appraised by an arbitration committee representing the various interests at stake. The commission unanimously agreed to the principle of this solution of the question at issue.

April 21st.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Balneological Association.

THE meeting of the German Balneological Association was held this year at Breslau, Professor Brieger being in the chair. Professor Strümpell (Breslau) read a paper on the Treatment of Bronchial Diseases by Electric Light Baths. He said that he had obtained good results, especially in dry bronchitis and in asthma; in every case a careful examination of the heart should be made previously to the treatment, because certain cardiac diseases and also sclerosis of the aorta might present the appearance of chronic bronchitis. Typical fits of bronchial asthma and chronic dyspnœa caused by bronchiolitis were both of them favourably influenced by exposure to the electric light. The treatment must be commenced very cautiously, beginning with an irradiation whilst the patient is in bed; afterwards he might be put into the inclosed bath chamber and stay there in the presence of the medical attendant. Inveterate bronchitis has been recovered from after five or six applications of the electric light. In very severe cases the use of the electric light might be combined with medicines, such as iodide of potassium. Absolute rest was essential for the treatment and for this reason better results were obtained in hospitals and sanatoriums than when

patients were allowed to walk about at their own discretion. Dr. Determann (Freiburg) spoke on the subject of the Viscosity of the Blood at High Altitudes. He has been able to examine patients in Freiburg, which is situated at an altitude of 280 metres above the sea, and in St. Moritz (1840 metres above the sea). In those places he found the viscosity to increase in some persons at once and in others after several days. The maximum was reached and remained constant after ten days. The natives of St. Moritz showed the same phenomenon, which was, in Dr. Determann's opinion, caused by the diminution of oxygen inhaled at those altitudes causing an acceleration of the circulation in the lungs, so that the hæmatogenic organ must develop increased activity. The viscosity was very important for the circulation, which depended on the force of the heart and of the vessels as well as on the quality of the blood. Dr. Selig (Franzensbad) read a paper on the Influence of Athletic Sports on the Heart. A rational indulgence in such sports was recommendable from a medical point of view. Experiments showed that both the blood pressure and the pulse-rate increased after moderate exercises. Even patients suffering from valvular diseases of the heart were able to do the test work and only in myocarditis symptoms of insufficiency appeared. After over-exertion, however, severe symptoms might appear; the pulse-rate might attain a frequency of 187 and a decrease of 40 millimetres of mercury in the blood pressure has been observed. Neurosis of the heart often developed in athletes and the history of patients suffering from heart diseases showed over-exertion more frequently than was generally supposed. Over-exertion in cycling was especially prejudicial to the heart, while tennis was less injurious because it required less exertion, but even tennis was dangerous for chlorotic girls if played for too long a time. The old German gymnastics by which the whole body was exercised generally were preferable to the modern forms of athletics. The treatment of anæmia was discussed by Dr. Ziegler (Breslau). With regard to internal treatment he said that certain medicines were undoubtedly able to improve the composition of the blood. Iron, for instance, had a stimulating action on the cells and on the secretion of internal glands. Arsenic acted by destroying certain cells and by a consequent over-production of new cells. Thus its action was very like that of venesection and of transfusion. The increase of the red corpuscles in high altitudes was only an apparent one and was caused by loss of water and by a quicker development of the corpuscles perhaps under the influence of the sun. Frequent examination of the blood was essential for ascertaining the efficacy of treatment in anæmia; the presence of normoblasts and of polychromatophilic erythrocytes gave a good prognosis. Dr. Kisch (Marienbad) read a paper on Spastic Constipation, of which the symptoms were painful defæcation, a feeling as if fæces were still left in the rectum after defæcation, hypersensibility of the abdominal walls, and spasm of the sphincter. For treatment he recommended rest and a strengthening diet, with exclusion of food which tended to cause flatulence. The administration of belladonna and of atropine was to be recommended, and good results were obtained by mud baths, whilst massage and electricity were contra-indicated. Dr. Riedel (Berlin) presented a report of his researches concerning the internal administration of radium in the form of radiogen. Radiogen was produced by pressing water through a filter containing radium. Radiogen was given for a long time without producing any obvious effect and in the urine even after the administration of 100,000 units no emanation of radium was present. Dr. Riedel has treated nearly 100 patients by radiogen, the result being that some of them were benefited whilst others were not influenced at all. Other papers read before the congress dealt with Neurosis of the Heart, by Dr. Jacob of Kudowa; the Diagnosis of Pulmonary Diseases by Radiography, by Dr. Kraft of Goerbersdorf; and the Treatment of Tuberculosis of the Joints, by Dr. Tietze of Breslau.

The Management of Labour.

According to a paper by Professor Martin in the *Monatsschrift für Geburtshülfe und Gynäkologie* and quoted in the *Berliner Klinische Wochenschrift* he allowed 100 women in whom delivery had been normal and whose internal organs were healthy to leave their beds the day after delivery. Care was taken that they sat in comfortable chairs, the abdomen being compressed by a firm bandage, and they were not permitted either to walk about or to do any kind of work. The results were very satisfactory, the bowels and urine gave no trouble, and the involution of the uterus proceeded in a normal way. Professor Martin recommended this method in all normal confinements in cases where an infection is unlikely to occur.

Infection by Gonococci through the Skin.

At a recent meeting of the Berlin Ophthalmological Society Dr. Schoelor reported the case of a nurse who in nursing a child suffering from gonorrhœal conjunctivitis received a slight injury on the right forefinger. Necrosis of the epidermis and an ulcer developed, and on microscopical examination diplococci with a negative Gram-reaction were found. An abscess on the femur ensued and the patient died from septicæmia. This was the first case where a general septicæmia was caused by the entrance of gonococci through the skin.

April 20th.

COPENHAGEN.

(FROM OUR OWN CORRESPONDENT.)

The Finsen Medical Light Institute.

ON April 14th the King and the Royal Family honoured the memory of Niels R. Finsen in being present at the inauguration of the clinic for internal diseases in connexion with the Finsen Medical Light Institute. Ever since Professor Finsen began to study the action of actinic rays he regarded the universal effect of the rays on the organism as being of the highest interest and importance. In his last address to the board of directors of the Light Institute he expressed his belief that the light rays as a therapeutic means would be particularly valuable in the form of light baths in chronic diseases, such as diseases of the blood, of metabolism, or of the circulatory system. But Finsen did not live to see his ideas on this point carried out. After his death certain investigations on the universal action of light rays, made by Dr. K. A. Hasselbalch, now director of the Finsen Institute Laboratory, are claimed to support Finsen's ideas, particularly as regards certain diseases of the heart, and in consequence the new clinic has been erected. It accommodates 32 in-patients and has, moreover, a large out-patient department. Of course, the chief work of the clinic will be the study of the general action of the light rays on the diseased organism, but its magnificent equipment enables it to apply all modern methods of physical and dietetic treatment. To the best knowledge of your correspondent Denmark is so far the only country in which the medical profession has had any opportunity of testing the value of the new light bath treatment for diseases of the circulatory system as carried out in the Finsen Medical Light Institute. A report on the discussions on this topic in the medical societies of Copenhagen might therefore perhaps interest the readers of THE LANCET. When the director of the laboratory of the Copenhagen Institute, Dr. Hasselbalch, made his first communication on the subject he claimed that the treatment brought about a lasting dilatation of the vessels of the skin and simultaneously a decrease of the blood pressure lasting for more than a month after the light bath. He proposed, therefore, to apply the bath to diseased conditions in which a decrease of the arterial pressure was desired. At a meeting of the Medical Society of Copenhagen Dr. H. Jacobæus of the Finsen Institute reported on a series of 15 cases of angina pectoris treated in the way above mentioned. In a man aged 67 years the very grave and painful attacks ceased under the bath treatment, while another patient who for several years had suffered from anginous symptoms was completely relieved after a very short treatment; some months afterwards the attacks recurred but disappeared again after a second treatment. In 12 other cases greater or less improvement occurred and only in one case did the light bath treatment fail to influence the condition. Also other forms of heart disease seemed to benefit from the treatment. In the ensuing discussion Professor Chr. Gram said that the material was too small and the time of observation too short to allow of forming any opinion as to the curative effect of the light baths. Improvement in cases of angina pectoris was often observed either spontaneously even for somewhat long periods of time or as a result of the usual medical treatment. It was

probable that suggestion played a prominent part in obtaining the good results. Professor Israel-Rosenthal agreed with Professor Gram. In one case which he had seen there was pronounced improvement after each bath, but the disease (chronic nephritis and myocarditis) nevertheless progressed with extraordinary rapidity. Professor Friedenreich pointed out that it was often very difficult to arrive at a prognosis in cases of angina pectoris and that the patients often rallied spontaneously in a most surprising way. One patient, whose condition he had regarded as hopeless, lived for 15 or 20 years afterwards. Professor Henriques discussed the theoretical foundation of the treatment. That it brought about hyperæmia of the skin could not be doubted. Dr. Hasselbalch had further found that the pressure in the brachial artery was lessened, but this did not show that the aortic pressure also decreased, so that the chief contention on which the treatment was based could not be considered proved. But even if the aortic pressure really became less the treatment might be dangerous in many cases; for instance, in hypertrophy of the heart in renal affections, for in these patients the high blood pressure is very important. Dr. Jacobæus agreed with Professor Henriques in what he had said about the aortic pressure. But it was undeniable that dilated hearts contracted under the light treatment, so that it was necessary to presume that the dilatation of the vessels of the skin brought about a decrease in the aortic pressure.

Recently a fresh discussion on the same subject took place on the occasion of a communication made by Dr. Bie and Dr. Bing to the Society for Physical Therapeutics and Dietetics. These investigators had tried to apply the treatment to heart diseases and other affections in the Kommune Hospital of Copenhagen. Instead of using a 150 ampères arc lamp, as Dr. Hasselbalch and Dr. Jacobæus had done, they had employed the far less costly "uviol lamp," a mercury incandescent lamp with "uviol" glass. The light of this lamp contains plenty of the effective ultra-violet rays but only few of the particularly heating rays, so that it is possible to place the lamp quite near to the skin. An illumination of the skin for a period varying from 15 to 30 minutes with the lamp at a distance of from 15 to 30 centimetres results in a very pronounced erythema of the same intensity and duration as that brought about by the arc lamp. The skin retains its scarlet colour for about one week, after which desquamation sets in and pigmentation takes place, so that after two weeks the skin becomes of a brownish tinge. But even several months after the light bath a slight remnant of dilatation of the vessels of the skin was discernible. Though it is scarcely to be expected that the dilatation takes place in more than a few tenths of a millimetre of the uppermost layers of the skin, it is not a small quantity of blood that the skin can absorb in this way. How this may influence the circulation can scarcely be estimated in the present state of physiological knowledge. The patients treated had chiefly suffered from neurasthenia or diseases of the circulatory system. The most pronounced improvement occurred in the neurasthenic cases. The patients suffering from heart disease were, as a rule, improved to a certain degree, in so far as they complained less of pain or insomnia. But trustworthy data for the estimation of the improvement were unfortunately not available. Further investigations were needed in order to make out the indications of the light bath treatment. Dr. Hasselbalch thought it important for the future of the new treatment if a cheaper and less intense source of light than that which is used in the Finsen Institute should prove useful. He said that his latest investigations had shown that the light treatment, amongst other effects, brought about (1) an increase of the total capacity of the lungs, due to augmentation of the inspiratory innervation; (2) a decrease in the respiratory frequency; and (3) an augmentation of the so-called pulse pressure. Dr. Jacobæus said that he regarded the light bath as a valuable help in various diseases, including cardiac affections, and that he had particularly noted its good effect on the painful attacks of angina pectoris. Dr. E. E. Faber said that in his opinion the alteration of the respiration and circulation brought about by the treatment was too small to explain the good results and that the treatment perhaps had more of psychical influence than was commonly supposed by its advocates. Professor Israel-Rosenthal said that he felt somewhat astonished at the roseate tints in which Dr. Jacobæus had depicted the results of the treatment. He had himself seen eight or nine of the patients treated at the Finsen Institute and of these not one had been conspicuously improved. Only one had improved considerably and this improvement had merely been transitory. In all the remaining patients the effect had been *nil* or very slight and transitory, probably due to suggestion. It was not to be forgotten that the whole apparatus and procedure of the light bath treatment were admirably fitted to act by the power of suggestion, and pain, even if due to organic lesions, might undergo temporary relief due to suggestion. He felt bound to mention that he had heard of two cases with good results, but even in these the improvement soon passed away. His experience was consequently the opposite of that of Dr. Jacobæus. Dr. Clod-Hansen reminded the meeting of the many wonderful cures of stenocardiac attacks effected by Pastor Kneipp in Germany only by pouring cold water on the feet and legs of the patients. In these diseases suggestion counted for much.

Postponement of a Medical Congress.

It is much to be regretted that the political tension existing between Sweden on the one side and Denmark and Norway on the other, ever since the declaration of independence on the part of Norway, threatens to prevent the Scandinavian medical men from meeting as usual at the Congress of Internal Medicine which was to be held in Bergen this summer. The Congress has been postponed, as the Swedish members of the committee have resigned. Representatives of the four nationalities concerned—namely, Denmark, Finland, Norway, and Sweden—will presumably meet in Copenhagen and consider the best means of restoring the good understanding which ought always to reign amongst members of our profession.

Death of Professor Lennander.

By the death of Professor Karl Gustav Lennander of Upsala Swedish surgery has lost one of its most eminent representatives. He was only 51 years old when he died, having for several years struggled with exceptional fortitude against chronic heart disease. Professor Lennander was particularly interested in abdominal surgery and was the author of a long series of important contributions to this branch of modern surgery. His investigations into the sensibility of the different organs, and particularly of the peritoneum, made his name very widely known. He suggested an original method of avoiding thrombosis of the veins of the lower extremities after abdominal operations, the chief point being the elevation of the foot of the bed. The deceased has bequeathed his considerable fortune and library to Swedish medical institutions.

April 20th.

BUDAPEST.

(FROM OUR OWN CORRESPONDENT.)

The Urethroscopic Diagnosis of Gonorrhœa.

ONE of the most active of the Hungarian urologists, Dr. Joseph Sellei, has written a small work on the diagnosis of urinary diseases. He was induced to undertake this task, as he says in the preface, by having had under his observation a great number of cases of gonorrhœa which had persisted in spite of treatment. On inquiring into the reason of this he came to the conclusion that the want of success was due to improper therapeutic measures owing to incorrect diagnosis. Most patients stated that no urethroscope was used in their treatment. Dr. Sellei says that the use of the urethroscope is indispensable for arriving at a proper diagnosis and in his opinion a urethroscopic examination is not complete unless a magnifying glass is used. Methods of magnifying the visual field have been suggested by several experts but their instruments have not been favourably received by the specialists. Dr. Sellei has, however, succeeded in devising a urethroscope which answers all requirements. He adapts an auxiliary rail to the handle of the lamp-holder and on this there is mounted a magnifying glass which can be pushed to and fro and the centre of which coincides with the optical axis of the urethroscope. This glass can be turned into a variety of positions in order to allow the introduction of a small tampon into the tube. With this modification the dispersion of light is avoided so that the image becomes clearer and the visual field is also considerably enlarged.

The Protection of Children.

A couple of years ago a movement was started in Hungary

for the protection of poor helpless children from some of the dangers to which they are exposed. A league was formed one and a half years ago for carrying out these objects and during the whole of this time it has worked with unflagging energy. The league owns a large building in Budapest where destitute children are provided for, those who are ill being accommodated in the hospital section where medical attendance is gratuitous. Delicate children are sent to the seaside during the summer months. A large sanatorium is to be erected next year in the vicinity of Fiume on the Adriatic for the reception of scrofulous children. Contributions to the fund of the league are solicited on a very clever system. Once or twice in a year a day is appointed when merchants and manufacturers pay to the league a certain proportion (about 1 per cent.) of their takings for that day. They do this willingly, because what they lose by allowing 1 per cent. for the charity they regain from the profits on increased sales, because the benevolent portion of the public buys largely on this day when they know that a share of their money goes to serve a charitable purpose. This year the so-called "Children's Day" was kept on April 2nd. On this day the elementary schools are closed and in the streets ladies and girls are in charge of collecting boxes into which they invite the passers-by to drop contributions. Bands of music play in the streets and crowds of children assemble to listen to them; the theatres also hold children's matinées and the streets are as gaily decorated as on public holidays. Such a children's day might bring in from £8000 to £10,000 in the whole country. One town—Nagyvarad—has sent in £200. The above sum, considering the fact that administrative work is done gratuitously, is a fair amount.

Reform of the Army Medical Corps.

A long-existing anomaly will be shortly abolished by the new organisation of the Army Medical Corps. The Government has been induced to take this step by the circumstance that for several years past there have been on an average only six applicants for ten vacancies. This was due to the low rate of pay and to the unsatisfactory position as regards relative rank of military surgeons in Austria-Hungary. The Minister of War now perceives that the dearth of military surgeons cannot be avoided without a substantial improvement in the rank and pay assigned to them. He has therefore lately decided that promotion shall be accelerated and that military surgeons shall have relative rank analogous to that of the combatant officers as is the case in the British Army Medical Service. Military surgeons will be accordingly designated surgeon-major, surgeon-colonel, and surgeon-general, in addition to which there will be several new titles created. A regular yearly allowance of £50 or £60 will also be given to medical students who undertake to enter the Army Medical Service after graduation.

April 16th.

Obituary.

MARY EDITH PECHEY-PHIPSON, M.D. BERNE, L.R.C.P. IREL.

THE death of Dr. Mary Edith Pechey-Phipson has removed from the ranks of medical women one who would have made her mark in any age and in any calling. It is now some 38 years since she went to Edinburgh to join Miss Jex-Blake in the struggle that was being made for the medical education of women. It is remarkable how great the courage and patience of that handful of women must have been, and "in those difficult and stormy days," writes Miss Margaret Todd, M.D., "Miss Pechey proved herself a loyal comrade and—what was wanted quite as much—an admirable student." It is not easy nowadays for a woman to surprise us greatly by the brilliancy of her record in the schools. 30 or 40 years ago the position was very different, for, handicapped by the shortcomings of their previous education, women found it no easy matter to shine in the examination room. But from the beginning of her career Edith Pechey raised a standard which has scarcely been overtopped. We again quote from Miss Margaret Todd's sympathetic letter to us:—"She brought to the study of medicine quickness of perception, neatness of hand, and a genuine love of science. Having passed a brilliant examination in arts, she proceeded to the classes of chemistry and physiology, and at the end of the session she stood first in chemistry among some 300 students, male and female, of her year. From that time on the curriculum of the women ran a somewhat chequered course; they had to build the walls of Jerusalem with the sword in one hand and the trowel in the other; but in 1877 Miss Pechey obtained her diploma from the Irish College of Physicians and in the same year the degree of M.D. from the University of Berne. Immediately after graduation she was fortunate enough to obtain a post in Birmingham under Mr. Lawson Tait, from whom she gained that experience in abdominal surgery which was to stand her in such excellent stead, and after practising for a short time in Leeds she was appointed to the control of the newly founded Kama Hospital in Bombay. The opportunity was a fine one and she was the very woman for the task. The whole scheme for providing medical aid for the women of India was then in its infancy and much of its subsequent success is due to the masterly fashion in which she planned out the work, always acting in firm adherence to the best ethics of the profession. A dispensary was speedily opened and by the end of a week 100 patients were seen daily. The opening of the hospital followed with as little delay as might be, though the cosmopolitan character of Bombay and the many races and castes which had to be reckoned with made the task a very difficult one. Quickly establishing a creditable record in major surgery, she organised the work of the hospital and, in the teeth of native prejudice, revolutionised the whole system of nursing. At the same time, her strong and picturesque personality gave her a position to which the women who followed in her steps owed much. She was appointed a member of the Senate of Bombay University, an honour which so far has fallen to the lot of no other woman. Some years before this she had married Mr. Herbert Phipson whose scientific tastes proved a bond of common interest. Jointly they founded a philanthropic sanatorium in the Deccan and pursued the study of many scientific and social questions."

From the first she had found the climate of Bombay very trying, aggravated as were its effects by hard work and heavy responsibility. After some 10 years of arduous service she retired from her post with broken health, but on the outbreak of the plague in 1896 she was among the first to organise and to take part in the house-to-house visitation. To the end of her life she retained her keenness of intellect and her extraordinary grip of all questions—scientific and social—of the day. She was a loyal friend, a brilliant hostess, and a very kind woman. She died somewhat unexpectedly from a chronic malady at Folkestone on April 14th.

OSWALD AUCHINLECK BROWNE, M.D. CANTAB., F.R.C.P. LOND.

To his many friends the news of the death of Oswald Auchinleck Browne, which occurred on April 9th, must have come as a sad surprise, for but little had been heard of any illness. As a matter of fact, however, the case stands thus. For some time past he had been subject to attacks of acute abdominal pain and at last an operation was considered necessary. This was performed successfully, when the trouble was found to be due to duodenal ulcer among other causes. On the afternoon of April 9th a sudden attack of cardiac failure set in, from which he never rallied. Dr. Browne was born in 1855 and was educated at Harrow and at Trinity College, Cambridge, while he received his medical training at St. Bartholomew's Hospital, London. He qualified as M.R.C.S. Eng. in 1881 and from 1882 to 1883 held the post of house physician to Dr. S. J. Gee. In 1884 he graduated as M.B. Cantab., proceeding to the degree of M.D. in 1897. He became a Member of the Royal College of Physicians in 1886 and a Fellow in 1898. He was casualty physician at St. Bartholomew's Hospital during the years 1886, 1887, and 1888, being also elected physician to the Royal Hospital for Diseases of the Chest, City-road, in 1886. In 1890 he was elected assistant physician to the Metropolitan Hospital and in 1903 was appointed consulting physician, and in the same year he was appointed assistant registrar of the Royal College of Physicians. Dr. Browne was a man of singularly modest and retiring disposition and the many good works which he did were known to very few others than those who benefited thereby. He was an earnest Churchman and took a deep interest in the Universities Mission to Central Africa, of the medical board of which he was for a long time a most valued member. Outside the more purely medical aspects of his calling he was for many years one of the churchwardens of the parish of St. Mary Magdalen, Munster-square, where as chairman of the school managers

committee his medical knowledge found much scope for good work. Like his namesake Sir Thomas Browne, he was the type of the cultured and learned physician, one who ever had before him the motto of Manchester al Mondo—

"He that would end his dayes well must spend them well."

HENRY COLLIER LECKY, M.A., B.M., B.CH. OXON., D.P.H. OXON.

As we announced a fortnight ago, Dr. H. C. Lecky died at the Sussex County Hospital, Brighton, on March 31st. His illness commenced with dramatic suddenness, as he fainted in a shop at Brighton, was taken to his rooms, and was found to be suffering from a right-sided pleurisy. A few days later pneumonia developed; subsequently the opposite lung became involved and death occurred at about the end of the third week. Up to the time of his illness for some weeks Dr. Lecky had been acting as medical officer of health of Brighton; previously to this he had for nearly two years acted as resident medical officer of the borough sanatorium and deputy medical officer of health of Brighton; he had also held important resident appointments at St. Thomas's Hospital, London, and the Radcliffe Infirmary, Oxford. Death has thus cut short at an early age what promised to be a more than usually successful and useful career, for Dr. Lecky was but 29 years of age. Highly trained, devoted to his scientific studies, a most careful and exact investigator, and one who never shirked patient and laborious work, it seemed to his numerous medical friends that he had a splendid future before him. One who has had much to do with students writes: "A loss to all who knew him personally, he is no less a loss to the medical profession. He will pass in my memory to a very select circle of young men of the highest promise, eight or ten of them. Throughout life he possessed to a remarkable degree the power of making friends and no one was ever the worse for his friendship."

From Brighton a similar testimony to Dr. Lecky's winning quality comes, for a medical friend writes from there: "In the short time we had known him at Brighton we had come to love him. His brightness, unselfishness, and unfailing courtesy and kindness to all compelled affection. I never heard him say a word I would have wished unsaid and never saw him do a thing I would have wished undone. His modesty was almost a source of weakness, so over anxious was he always not to hurt another's feelings. I cannot recall another character quite like his."

We hope that these brief lines in memory of Dr. Lecky's charming personality and of the high standard of life which he had set himself will be a source of gratification to the many friends who are now regretting his untimely death.

Medical News.

LONDON SCHOOL OF TROPICAL MEDICINE.—The following students of the above school successfully passed the examination in Tropical Medicine held at the end of the twenty-sixth session, January to April, 1908:—

*A. H. Skinner, M.B., Ch.B. Aberd.; *A. R. Short, M.D., B.S. Lond.; *J. Jackson, Major, I.M.S., M.B., B.Ch. R.U.I.; *W. T. Quaife, M.B., Ch.M. Sydney; *C. W. Branch (Colonial Service), M.B., C.M. Edin.; *R. P. Cockin (Colonial Service), M.B., B.C. Camb., M.A. Camb.; *A. A. Myers (Colonial Service), M.R.C.S. Eng., L.R.C.P. Lond.; *C. D. Dawes, Major, I.M.S., M.R.C.S. Eng., L.R.C.P. Lond.; E. J. Porteous (Colonial Service), M.B., Ch.B. Edin.; J. McConaghy (Colonial Service), M.B., B.A.O., B.Ch. R.U.I.; A. B. Neale (Colonial Service), M.D. Durh., M.B., B.C. Durh.; C. M. Goodbody, Captain, I.M.S., M.R.C.S. Eng., L.R.C.P. Lond.; D. Burrows (Colonial Service), L.R.C.P. & S. Edin.; J. S. Pearson (Colonial Service), M.R.C.S. Eng., L.R.C.P. Lond.; W. F. Roach (Colonial Service), M.D., C.M. Montreal; L.A.H. Irel.; H. R. Morehead (Colonial Service), L.R.C.P. & S. Edin.; J. H. McKay (Colonial Service), M.D. Tor., L.R.C.P. Edin.; and R. Welply (Colonial Service), L.R.C.P. & S. Irel.

* With distinction.

FOREIGN UNIVERSITY INTELLIGENCE.—*Algiers (School of Medicine):* Dr. Weber, *agrégé* of the Nancy Faculty of Medicine, has been appointed to the chair of Pathological Anatomy and Histology in succession to M. Bouin.—*Amsterdam:* Dr. W. M. de Vries has been recognised as *privat-docent* of Ophthalmology.—*Berlin:* Dr. W. Heubner, Assistant in the Strasburg Pharmacological Institute, has been appointed First Assistant in the Pharmacological Institute of this University in succession to Professor Langaard. The title of Professor has been granted to Dr. Sigmund Gottschalk, *privat-docent* of Gynæcology; Dr. Leopold Spiegel of the Chemical Department of the Pharmacological Institute of the University; and to Dr. Paul Krœmer *privat-docent* of Gynæcology.—*Berne:* Dr. A. Schönemann, *privat-docent* of Laryngology and Otology, has been granted the title of Professor.—*Bologna:* Dr. Giuseppe Stasi has been recognised as *privat-docent* of Surgery.—*Bonn:* The chair of Pharmacology from which Dr. C. Binz recently retired has been filled by the appointment of Dr. Hans Leo, Extraordinary Professor and Director of the Medical Policlinic. The new professor studied chemistry in his earlier days and is a Doctor of Philosophy as well as Doctor of Medicine. Before going to Bonn in 1900 he was Assistant in the Medical Policlinic in Berlin for 15 years.—*Erlangen:* The Bavarian Academy of Sciences has granted Dr. Richard Fuchs, *privat-docent* of Physiology, 1500 marks (£75) for the purpose of his researches on the effects of the air at high altitudes on the human body.—*Florence:* Dr. Antonio Mori has been recognised as *privat-docent* of Operative Medicine.—*Königsberg:* Dr. Siegfried Hammerschlag, *Oberarzt* of the Gynæcological Clinic, has been appointed Professor of Gynæcology.—*Paris:* Dr. Gley, whose researches on the physiology of the thyroid gland are well known, has been appointed to the Chair of General Biology in the Collège de France.—*Padua:* Dr. Luigi Peserico has been recognised as *privat-docent* of Medicine.—*Palermo:* Dr. Santi Pusateri has been recognised as *privat-docent* of Otology and Laryngology.—*Pavia:* Dr. Gaetano Ronzoni has been recognised as *privat-docent* of Internal Pathology, and Dr. Domenico Pane as *privat docent* of Bacteriology.—*Philadelphia (Jefferson Medical College):* Dr. Hiram L. Roux has been appointed Assistant Professor of Diseases of the Genito-Urinary Organs.—*Prague (German University):* Dr. Konrad Helly has been recognised as *privat-docent* of Pathological Anatomy.—*Strasburg:* Dr. Heinrich Kraft, *privat-docent* of Hydrotherapeutics, has been granted the title of Professor.—*Tomsk:* Dr. A. Lindström of Kieff has been appointed Extraordinary Professor of Dermatology.—*Vienna:* Dr. Hans Eppinger of Gratz has been recognised as *privat-docent* of Medicine.—*Zürich:* Dr. M. Rodari has been recognised as *privat-docent* of Gastro-Intestinal Diseases.

CARDIFF CITY HOSPITAL FOR MENTAL DISEASES.—This institution was formally opened by the chairman of the visiting committee, Councillor Morgan Thomas, on April 15th, in the presence of the Lord Mayor of Cardiff, the corporation, and a large number of guests. After a tour of inspection, during which great satisfaction was expressed with the arrangements for the patients' comfort, visitors were entertained to tea in the recreation hall by the chairman and members of the visiting committee. The buildings are grouped about a main corridor of horse-shoe shape, the wards being arranged in intercommunicating blocks which radiate from the convex aspect and face south, whilst the administrative offices, power-station, shops, &c., are on the inner aspect. The building has only two floors which will be found a great convenience in practice. The architects are Messrs. Oatley and Skinner of Bristol. There is no separate accommodation for private patients. In view of the undoubted need for suitable accommodation for mentally afflicted persons of the middle-class in South Wales, it is to be hoped that the committee may ere long see its way to erect two separate houses, for the two sexes, on the estate which covers 120 acres. The cost of the site was very considerable, the land being "accommodation" land, well suited for the purpose in view, with a gravelly soil, and only 15 minutes from Cardiff by rail. On the other hand, since building operations were commenced a suburb has sprung up round about the hospital, causing it to be somewhat overlooked and increasing the anxieties with regard to the supervision of patients. The total cost of the land and the buildings is approximately £350 000. The cost of furnishing and equipment, including all fixtures and also the church and recreation hall and farm equipment, amounts to £24,000. The wards accommodate 750 patients but administrative accommodation for 1250 exists, so that future extension of wards is provided for. The medical superintendent's residence is situated some 250 yards from the building and the three assistant medical officers provided for are housed in a block communicating with the corridor of administration. Gardens for exercising the patients are laid out on the southern aspect of the building and include tennis courts

for the quieter patients. There are tennis and croquet grounds for the nursing staff whose indoor comforts have also been carefully studied. The general bathing of the patients is on the spray system which has been found more expeditious and economical of water than the more general open bath system. As regards the various installations required in an institution of this kind, such as fire-extinguishing apparatus, departmental telephone service, and electric tell-tale apparatus, the hospital is well equipped. The low-pressure hot-water system is employed for heating the rooms and corridors. A central power station generates current for all necessary purposes. The committee is to be congratulated on having provided a pathological laboratory and an operating room, both well equipped; also rooms and appliances for electro-therapeutics, and all clinical appliances likely to be of service. These facilities, combined with the advantage of proximity to the Cardiff Infirmary and the laboratory of pathology and bacteriology at the Cardiff University College, will doubtless be appreciated by the medical staff of the new mental hospital and will tend to promote scientific work in connexion with it.

THE Royal Dental Hospital, Leicester-square, has received a donation of 50 guineas from His Majesty the King.

THE CASE OF CROPPER *v.* STOKES.—At an extraordinary meeting of the Islington Medical Society held on April 14th it was resolved:—

That the members of the Islington Medical Society, in special meeting assembled, express their sympathy with Dr. Henry Fraser Stokes in respect of the case of Cropper *v.* Stokes. They refer especially to the extraordinary remarks of Judge Edge on the evidence of the defendant, an old and well-known member of the society, and the refusal of his honour to allow any appeal or facilitate any rehearing of the case.

LITERARY INTELLIGENCE.—Messrs. Cassell and Co. announce for publication to-day, Friday, April 24th, a volume upon "Electrical Treatment," by Dr. Wilfred Harris, and "Diseases of the Nervous System," by Dr. H. Campbell Thomson.—A new journal, entitled the *Zeitschrift für Laryngologie, Rhinologie, und ihre Grenzgebiete (Journal of Laryngology, Rhinology, and Allied Departments of Surgery)*, will appear every two months, the annual subscription being 24 marks, to be paid to the publishers, Curt Kabitzsch (A. Stuber's Verlag), Würzburg. It will be edited by Dr. Felix Blumenfeld of Wiesbaden, with the coöperation of specialists.

THE MUNICIPAL EXHIBITION.—Having in view the great amount of interest which has been created in connexion with the use of x rays in hospitals, the management of the Municipal Exhibition, which will be opened at the Agricultural Hall on May 1st, has arranged with Mr. Alfred E. Dean to instal an x ray apparatus in a special building in the hall, and to give demonstrations illustrating its use, to be carried out at certain hours each day. The public are promised the opportunity of seeing the latest scientific developments in actual use. A new system of constructing fire-proof floors and partitions will also be on show, and will be of interest to the many medical men concerned in the conduct of institutions, such as hospitals, infirmaries, asylums, and retreats, where a rapid outbreak of fire would constitute a most appalling tragedy.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The spring meeting of the South-Eastern Division of this association will be held, by the courtesy of Dr. W. J. Seward, at the London County Asylum, Colney Hatch, on Tuesday morning next, April 28th. After inspection of the asylum and grounds, Dr. Seward will provide the members with luncheon (1.30 to 2.30 P.M.). Then follow a meeting of the divisional committee and at 2.45 P.M. the general meeting. After the transaction of formal business the following communications will be made:—Dr. Seward: "Notes on the History of Colney Hatch Asylum." Mr. W. C. Clifford Smith: "A Descriptive Account of the Buildings now in course of Erection at Colney Hatch Asylum." Dr. D. G. Thomson: "A few Remarks on the Teaching of Psychology." Dr. Harvey Baird: "Some Observations on Insanity in Jews." The members will dine together, after the meeting, at the Café Monico, Piccadilly Circus, London, W., at 7 P.M., provided that a sufficient number agree to dine. The price of the dinner is 5*s.*, exclusive of wine.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THE following answers to questions which were on the notice paper of Tuesday, April 14th, were circulated on the following day:—

The Inspection of Imported Meat.

Mr. FIELD asked the President of the Local Government Board whether he was aware that the Glasgow veterinary surgeon was of opinion that all meat imported from over seas ought to be presented for examination in such form as would enable inspectors here to revise the previous work of inspection and thus form a fair idea as to the wholesomeness for human food, and that all boneless meat or scrap should be entirely excluded; and whether the Government would consider the advisability of appointing and paying such a staff of inspectors.—Mr. BURNS wrote in reply: My attention has been called to this report. I propose that the regulations under the Public Health (Regulations as to Food) Act which I have in preparation should deal with imported boneless scrap meat. Other matters relating to the wholesomeness of imported meat are receiving my attention, but I do not think that inspection of the kind referred to in the last part of the question would be practicable at the present time.

The Post Office Medical Staff.

Mr. FIELD asked the Postmaster-General whether he would state the amount of sick leave and annual leave respectively of each of the Post Office medical officers in London, male and female, during each of the last five years.—Mr. BUXTON replied: I annex a statement showing the sick leave of the Post Office headquarters medical staff during the last five years and the annual leave to which each medical officer is entitled. The third assistant medical officer and the resident medical officer have been omitted, as they have not yet been employed for a full year. In 1907 no sick absence was granted.

—	Sick absence.				Annual leave allowed.
	1903.	1904.	1905.	1906.	
Chief medical officer	*Nil.*	*Nil.*	*Nil.*	3 days.	5 to 6 weeks.
Second medical officer	5 days.	,,	,,	*Nil.*	5 ,,
Female medical officer	*Nil.*	,,	,,	,,	5 ,,
Assistant female medical officer ...	,,	,,	,,	,,	5 ,,
First assistant to medical officer ...	,,	3 days.	,,	,,	4 to 5 ,,
Assistant to medical officer	,,	1 day.	104 days.	,,	4 to 5 ,,

Mr. FIELD also asked the right honourable gentleman to state the name, age, length of service, medical qualification, salary from imperial funds, and emoluments from other sources of each of the Post Office medical officers in London, male and female.—Mr. BUXTON answered: There are over 90 medical officers in the London postal district in addition to the headquarters staff. The preparation of the return asked for by the honourable Member would involve considerable labour without, as it appears to me, leading to any very useful result.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

APPLEYARD, WILLIAM, M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Senior House Surgeon at the Wolverhampton and Staffordshire General Hospital.

ASKINS, J., M.B., B.Ch., B.A.O. Dub., has been appointed Medical Inspector of School Children by the Merthyr Tydvil (Glamorganshire) Education Committee.

BARRY, J. P., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Inistioge District of the county of Kilkenny.

CASEY, CHARLES, L.R.C.S. Irel., L.A.H. Dub., has been appointed Medical Officer and Medical Officer of Health to No. 2 District of the North Dublin Union.

CURTIS, C. F., L.M.S.S.A. Lond., has been appointed Assistant House Surgeon at the General Infirmary, Stafford.

DAVIES, IVOR J., M.B., B.S. Lond., has been appointed Senior House Physician at the Royal Free Hospital.

DUNN, ARTHUR GIBSON, M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer at the Newcastle-upon-Tyne Dispensary.

EDWARDS, H. J., M.D. Durh., D.P.H., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Lynton District of the county of Devon.

FOTHERGILL, W. E., M.D., C.M. Edin., has been appointed Honorary Assistant Gynæcological Surgeon to the Manchester Royal Infirmary.

FERGUSON, J. M., L.R.C.P. & S. Edin., D.P.H., has been appointed Certifying Surgeon under the Factory and Workshop Act for the South Burnley District of the county of Lancaster.

GAUNTLETT, E. G., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon at the Royal Free Hospital.

GRIFFITH, A. D., M.B., B.S. Lond., has been appointed Senior Resident Medical Officer at the Royal Free Hospital.

HOWE, C. W., M.B., B.S. Edin., D.P.H., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Haddenham District of the county of Cambridge.

KELLY, M. W., L.R.C.P. & S. Irel., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Killanne District of the county of Wexford.

MCCOMISKEY, A., M.B., B.S. R.U.I., D.P.H., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Killough District of the county of Down.

PIRIE, W. R., M.B., M.S. Aberd., has been appointed Assistant Physician to the Aberdeen Royal Infirmary.

RODERICK, STANLEY JAMES, M.B., C.M. Edin., has been appointed Medical Inspector of School Children by the Llanelly (Carmarthenshire) Education Committee.

SKINNER, ALEX. H., M.B., Ch.B. Aberd., has been appointed House Surgeon at the Great Northern Central Hospital.

SMITH, FREDERICK, M.B., B.S. Aberd., has been appointed Assistant Anæsthetist to the Aberdeen Royal Infirmary.

STEPHEN, W. A., M.D., M.S. Edin., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Loftus District of the county of York.

THOMAS, FRANK LESLIE, M.B., B.S. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the North Devon Infirmary, Barnstaple.

WILLIAMS, CHISHOLM, F.R.C.S. Edin., M.R.C.S., L.R.C.P. Lond., L.S.A. Lond., has been appointed Medical Officer to the X Ray Department at St. John's Hospital for Diseases of the Skin, Leicester-square.

WILSHAW, R. H., M.B., Ch.B. Vict., D.P.H., has been appointed Medical Officer of Health for the Combined Sanitary Districts of Worthing Borough and East Preston.

WYNNE, J. D., M.B., B.S. Dub., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Clonmel District of the county of Tipperary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BANGOR, CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House Surgeon. Salary £80 per annum, with board, washing, and lodging.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board, washing, &c.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £100.

BRIDGEND, GLAMORGAN COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £150 per annum, with board, apartments, attendance, and washing.

BRISTOL GENERAL HOSPITAL.—Assistant House Physician. Salary £80, with board, residence, &c.

CANCER HOSPITAL (FREE), Fulham-road, London, S.W.—Honorary Physician.

CARDIFF INFIRMARY.—House Physician for six months. Salary £30, with board, residence, and laundry.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

CLINICAL RESEARCH ASSOCIATION.—Assistant Director of the Laboratory. Salary £250 per annum.

DREADNOUGHT HOSPITAL, Greenwich.—Assistant Physician; also Assistant Physician or Surgeon for Diseases of the Throat, Nose, and Ear.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, London, S.E.—Honorary Anæsthetist. Also House Physician for nine months, and House Surgeon for six months. Salary in each case at rate of £60 per annum, with board, residence, and washing.

GREAT YARMOUTH HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

GREENOCK INFIRMARY.—Assistant House Surgeon. Salary £40 per annum, with board and residence.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon, also Assistant Casualty Medical Officer, both for six months, and unmarried. Salary in each case £20, with board and residence. Also House Physician, unmarried, for six months. Salary £20, with board and residence.

HÔPITAL FRANÇAIS, 172, Shaftesbury-avenue, W.C.—Junior Resident Medical Officer, unmarried, for six months. Salary £50 per annum, with full board.

HUDDERSFIELD, COUNTY BOROUGH OF.—Assistant Medical Officer of Health (female). Salary £130 per annum.

IPSWICH, EAST SUFFOLK AND IPSWICH HOSPITAL.—Third House Surgeon. Salary £50 per annum.

ITALIAN HOSPITAL, Queen-square, London, W.C.—House Surgeon for six months, renewable. Salary £60 per annum, with board and residence.

KING EDWARD VII. SANATORIUM, Midhurst, Sussex.—Senior Assistant Medical Officer, unmarried. Salary £150 per annum, with board, lodging, and attendance.

LAMBETH WORKHOUSE, Renfrew-road, Lower Kennington-lane, S.E.—Assistant Medical Officer. Salary £125 per annum, with board, apartments, and washing.

LANCASTER, COUNTY LUNATIC ASYLUM.—Assistant Medical Officer for the summer months. Salary 3 guineas per week, with board, lodging, and washing.

LEEDS GENERAL INFIRMARY.—House Physician, also Ophthalmic House Surgeon, for six months. Board, lodging, and washing provided.

LINCOLN COUNTY HOSPITAL.—Junior House Surgeon, unmarried, for six months. Salary £30, with board, residence, and washing.

LINCOLN GENERAL DISPENSARY.—Resident Junior House Surgeon, unmarried. Salary £175 per annum, with apartments, fire, and gas provided.

LIVERPOOL DISPENSARIES.—Assistant Surgeon, unmarried. Salary £100 per annum, with board and apartments.

LONDON COUNTY ASYLUM, Horton, Epsom, Surrey.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and washing.

LONDON HOSPITAL, Whitechapel.—One Medical and Two Surgical Registrars. Salary in each case £100 per annum.

LONDON LOCK HOSPITAL AND RESCUE HOME, Harrow-road, W.—Honorary Dental Surgeon to Females.

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—Assistant Surgeon.

LOWESTOFT HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £60 per annum, with board, residence, and washing.

MEDICAL MISSION HOSPITAL, SETTLEMENT OF WOMEN WORKERS, Canning Town.—Assistant Doctor (female) for six months. Board, residence, and laundry.

NEW HOSPITAL FOR WOMEN, Euston-road.—Anæsthetist (female).

NORTHUMBERLAND, TYNEMOUTH INFIRMARY.—Two House Surgeons. Salary £50 per annum each, with rooms, board, &c.

NORWICH, NORFOLK AND NORWICH HOSPITAL.—House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing. Also Assistant House Surgeon for six months. Salary £20, with board, lodging, and washing.

NOTTINGHAM CITY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, &c.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Physician, also Assistant House Surgeon. Salary in each case £60 per annum, with board, lodging, and washing.

PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Physician for six months, renewable. Salary £50 per annum, with board, residence, and washing.

PRESTON, COUNTY BOROUGH OF.—Schools Medical Officer. Salary £250 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Assistant Resident Medical Officer for four months. Salary is at rate of £50 per annum, with board, residence, and washing. Also Physician to Out-patients.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £80 per annum, with rooms, commons, and washing.

ROYAL DENTAL HOSPITAL, Leicester-square.—Morning House Anæsthetist. Salary £50 per annum.

ROYAL NAVY, MEDICAL DEPARTMENT.—Examination for not less than 15 Commissions.

RYDE, ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House Surgeon. Salary £100 per annum.

SALISBURY INFIRMARY.—Assistant House Surgeon, unmarried. Salary £50 per annum, with apartments, board, and lodging.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone-road, N.W.—Surgeon.

SHREWSBURY, SALOP INFIRMARY.—House Physician for six months. Salary at rate of £50 per annum, with board and apartments.

SINGAPORE, STRAITS SETTLEMENTS, MUNICIPAL HEALTH DEPARTMENT.—Assistant Municipal Health Officer, unmarried. Salary $4200, rising to $4800.

STAFFORD, STAFFORDSHIRE COUNTY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £150 per annum, rising to £200, with board, lodging, and attendance.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House Surgeon. Salary £70 per annum, with apartments, board, and laundry.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Act at Insch, in the county of Aberdeen; at Birr, in King's County; at Tintern, in the county of Monmouth; and at Barnoldswick, in the county of York.

Births, Marriages, and Deaths.

BIRTHS.

NICOLL.—On April 17th, at Abingdon Villas, Kensington, the wife of Charles Vere Nicoll, M.R.C.S., L.R.C.P. Lond., of a son.

QUIRKE.—On April 10th, at Lillie-road, S.W., the wife of John J. Quirke, M.R.C.S., L.R.C.P., of a son.

MARRIAGES

FLETCHER—BROWNE.—On April 18th, at Llandaff Cathedral, by the Rev. Hugh Williams, M.A., assisted by the Rev. Canon Buckley, B.D., Vicar of the parish, Nigel Corbet Fletcher, B.A., M.B., B.C. Cantab., M.R.C.S. Eng., of 128, Haverstock Hill, N.W., to Mabel Isabel Browne, youngest daughter of the late Thomas Browne.

OWLES—OWLES.—On April 23rd, at St. Stephen's, Clapham Park, by the Rev. Digby Gritten, Chaplain to the Royal Hospital for Incurables, Putney, Oscar Wm. Owles, M.R.C.S. Eng., L.R.C.P. Lond., of Beccles, Suffolk, to Ethel, second daughter of the late F. J. Owles, of Norfolk House, Balham, and of Mrs. Owles, 291, Trinity-road, Wandsworth Common, S.W.

DEATHS

PECHEY-PHIPSON.—On April 14th, at Grimston Gardens, Folkestone, Mary Edith Pechey-Phipson, M.D.

WALKER.—On April 13th, at Wolverton, Beckenham, Joseph Walker, M.D., M.R.C.S. Eng., L.D.S., in his 83rd year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

POISONING BY TRIONAL.

THE following brief note of an interesting case of poisoning by trional has been sent us by a well-known medical man who regrets that his name must not appear in connexion with it. The patient is to be congratulated upon the prompt and skilful treatment which he received:—

After taking, on his own initiative and without medical advice, 15 grains of trional for 32 nights a man suddenly became comatose. Found at 7 A.M. in his bedroom in this state; the writer saw him at 7.50 A.M. He was absolutely stupefied, could in no way be roused, all reflexes absent, respirations eight per minute, temperature (rectal) 97·2°; no water in bladder. The writer tied a catheter in the bladder and relied on saline injections, subcutaneous and rectal. Urine began to dribble from the bladder in an hour (exactly) and by pushing the salines a steady flow of urine was established. As soon as the kidneys were deemed to be doing good work food was given per rectum at regular intervals. From 7 A.M. till 2 A.M. of the next morning the coma did not lift. After 19 hours (but probably much longer as we had no data as to the time of its incidence) the coma began to have intervals, querulous and questioning, with long lapses of minor coma and finally long sleeps. From the time he was found till the time he recognised the writer (whom he knows well) was 72 hours. His proper adjustment of vision did not ensue for five days and the power over his bladder did not completely return for six days. The writer has never before seen toxæmia from this drug and probably the bare facts may be of interest to your readers.

M.D.

MEDICAL FEES UNDER THE MIDWIVES ACT.

To the Editor of THE LANCET.

SIR,—In October last the guardians of Nottingham issued circulars to the medical practitioners of the district informing them that they had adopted the recommendation of the Local Government Board and that "if the guardians are satisfied that the husband or natural guardian of the patient is too poor to pay for her necessities they will exercise the powers given them and pay a fee of 21*s.* in each case (and a higher fee where exceptional circumstances warrant it) in which medical assistance has been rendered on the application of a midwife."

About two months ago I was sent for by a midwife who had difficulty in delivering the after-coming head. I sent in an account for 21*s.* to the guardians and the enclosed is a copy of the clerk's reply. I hold that this was a case that should be paid. The man had to make an allowance to his wife's parents for board for two people.

No county court judge would make an order against a man earning only 20*s.* a week and yet the guardians think he is quite able to pay. Any case poorer than this one would expect to be attended by the parish doctor. I would be glad to have your opinion and that of your readers on the subject.

I am, Sir, yours faithfully

Nottingham, April 18th, 1908. WILFRID J. H. HEPWORTH.

[INCLOSURE.]

Poor Law Offices, Nottingham,
Feb. 18th, 1908.

Midwives Act, 1902.

DEAR SIR,—With reference to the case of Mrs. S—— of ——street and your claim upon the guardians for payment of a fee of 21*s.*, I am instructed to refer you to the woman's husband for payment of the fee. The man earns 20*s.* a week, has no children, and lives with his wife's parents, consequently the guardians consider he should be responsible for it.

Yours truly,

G. M. HOWARD,
Clerk to the Guardians.

W. H. Hepworth, Surgeon.

*** We should certainly have thought that the fee, though the lowest fee possible in the circumstances, was out of the range of the patient's husband.—ED. L.

HEALTH REFORM IN GLASGOW.

Dr. A. K. Chalmers, medical officer of health of Glasgow, recently delivered an interesting lecture on the subject of Practical Health Reforms under the auspices of the Glasgow Health Culture Society. In dealing with the subject he referred more especially to the problem of town population, which was increasing to such an extent that now almost 75 per cent. of the population lived in towns. It was being earnestly asked what was the effect of town life on individual resistance to disease. It was not wholly a question of fatal disease, but of the vigour of the survivors. He believed that the two were correlated, although the reports of some friendly societies appeared to indicate that both the sickness-rate at given age periods was now greater than formerly, and that the sums paid annually in sick relief exceeded the annual contributions and could only be met from the proceeds of invested capital. These were serious suggestions if they rightly interpreted the facts. The facts, however, were not wholly against the conditions of town life. The average boy in secondary schools in towns was physically fitter than the average boy of rural districts. What was wanted was not a record of mortality but of vitality. This was to be accomplished by a national stocktaking of intellectual growth and fitness, medical inspection of school children, and the teaching of hygiene. There would be fewer dirty and unventilated houses and a much better selection of the foodstuffs for household dietary were the teaching of hygiene to children undertaken in the spirit which the recent circular of the Education Department aimed at introducing. The modern city was ill-adapted to the needs of child life. There was need for a playground for each tenement, an unpolluted atmosphere, and a pure milk-supply.

IMPROPER ADVERTISEMENTS.

A MEDICAL man has sent us the red cover of a popular weekly magazine, dated April 23rd, on the inner page of which is a somewhat astonishing array of advertisements. There are seven advertisements of so-called "Ladies' Remedies," and in every case the advertisement is worded so that it may make the buyer believe that she is purchasing something that will bring on the monthly period. They are said to contain pennyroyal or apiol, or "never to fail to give relief, although they do not contain pennyroyal." There is not one of them that cannot be detected at once as an improper advertisement, in view of the fact that during the child-bearing period suppression of menstruation is generally due to pregnancy. There are four invitations to "weak" men or "nervous" men to buy pamphlets which will teach them how to re-create their vitality, and there are ordinary advertisements of quacks. We fear we cannot do anything in the matter, though we are obliged to our correspondent for inviting our attention to it. We could pillory the proprietor of the paper in question, but he must know the way in which his money is being made, so that there is no reason to suppose he would change his tactics. Nothing that we said about the morals of the wretched people who prey upon the sexual weaknesses of the public would cause them to suppress their advertisements. As long as they can obtain a place for their advertisements in newspapers so long will they advertise. Our opinion of their character is, of course, of no consequence to them. The public has the remedy in its own hands. If a large section of the public were to write to the proprietor of the paper in question and say that they declined to enter his "Limerick" competitions until he had purged his advertisement columns from filth, every one of these advertisements would disappear the next day. They are inserted because there is money in them, and they would be suppressed the moment money began to be lost by them.

RETURN TO LIFE.

A SENSATIONAL story has been going around concerning a remarkable return to life of a dead patient. Medical men have been a little bored lately by sensational and unwarranted statements concerning the frequency with which burial alive takes place, the amiable suggestion being frequently added that these horrors occur through medical carelessness. We have no doubt whatever that the latest case is filed for future reference as one of suspended animation where the medical man was deceived into believing that the patient was dead, and it may be so used for platform purposes. In truth, it turned out that the medical man had never believed the patient to be dead, but that the patient's friends had misunderstood what he said and had already taken steps to draw the insurance money. The patient and his family came of a thrifty race.

J. P. B.-P.—The corrected proof did not arrive in time for the alterations to be made.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 23rd, 1908.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
April 17	30·34	N.E.	...	102	58	41	40	43	Cloudy
,, 18	30·00	N.E.	...	100	49	42	43	48	Cloudy
,, 19	29·84	N.E.	...	88	45	40	39	44	Cloudy
,, 20	29·74	N.E.	0·10	91	44	35	36	38	Cloudy
,, 21	29·80	W.	0·05	66	49	34	39	40	Cloudy
,, 22	29·74	S.W.	0·04	100	55	40	44	46	Fine
,, 23	29·67	N.E.	0·01	52	44	40	39	41	Cloudy

During the week marked copies of the following newspapers have been received:—*Whitby Gazette, Cardiff News, Sheffield Evening Telegraph, Belfast Whig, Glasgow Evening Times, Portsmouth Evening News, Belfast News Letter, Montreal Standard, Freeman's Journal, Scotsman, Preston Post, Daily Chronicle, Standard, Leeds Post, Birmingham Gazette, Morning Post, Manchester Courier, Glasgow Record, Brighton and Sussex Daily News, Daily Express, Dundee Advertiser, Darlington Star, Leicester Mercury, Sheffield Telegraph, &c.*

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 20, Hanover-square, W.

TUESDAY.

MEDICAL SECTION (Hon. Secretaries—H. H. Tooth, H. P. Hawkins): at 5.30 P.M.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION (Hon. Secretaries—J. Gray Duncanson, H. C. Cameron) at Apothecaries' Hall, Blackfriars, E.C.: at 4.30 P.M.

Paper:

Dr. Leonard Guthrie: Remarks on Rheumatism and Chorea in Children.

N.B.—Fellows of the Society are entitled to attend and to speak at all Meetings.

MEDICAL SOCIETY OF LONDON, 11, Chandos-street, Cavendish-square, W.

MONDAY.—8.30 P.M., Colonel D. Bruce, R.A.M.C.: Malta Fever. Mr. T. H. Kellock: Appendicitis a Cause of Pyosalpinx.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, Hammersmith-road, W.

FRIDAY.—8.30 P.M., Prof. H. Spencer: The Advantage of Abdominal and Pelvic Examination in Pregnancy. Dr. S. Taylor: Some Neglected Remedies.

MEDICO-LEGAL SOCIETY, 22, Albemarle-street, W.

TUESDAY.—8.15 P.M., Narration of Cases and Exhibits of Medico-Legal Interest. Mr. F. G. Frayling: Infanticide, its Law and Punishment.

CHELSEA CLINICAL SOCIETY, Chelsea Dispensary, Manor-street, Chelsea, S.W.

TUESDAY.—8.30 P.M., Dr. D. Arthur: Diagnosis of Chest Diseases by X Rays (illustrated by lantern slides). Dr. R. Roche: Notes on Two Recent Cases of Extra-Uterine Fœtation.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

ROYAL INSTITUTION OF GREAT BRITAIN, Albemarle-street, Piccadilly, W.

THURSDAY.—3 P.M., Mr. W. Bateson: Mendelian Heredity. (Lecture I.) (Tyndall Lectures.)

FRIDAY.—5 P.M., Annual Meeting. 9 P.M., Prof. J. Larmor: The Scientific Work of Lord Kelvin.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (27th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), West London (2.30 P.M.).

TUESDAY (28th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.).

WEDNESDAY (29th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic 2.30 P.M.), West London (2.30 P.M.).

THURSDAY (30th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.).

FRIDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.).

SATURDAY (2nd).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

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IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

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Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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